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| **CURRICULUM VITAE****Eta S. Berner, Ed.D.** **(Eta Berner Weiss)** |
| **University ProfessorGraduate Programs in Health Informatics Department of Health Services AdministrationSchool of Health Professions** **University of Alabama at Birmingham** **Room 590 J** **1716 9th Ave South** **Birmingham, Alabama 35294** **Office Phone: (205) 975-8219** **FAX: (205) 975-6608** **Email:** **Eberner@uab.edu**Last Updated 4/22/2022 | Berner 2016 |
|       **Education** |
| B.A.  Ed.D.Post-Doctoral Fellow | Psychology (With Highest Distinction), University of Rochester, 1967   Human Development, Harvard Graduate School of Education, 1971 Office of Research in Medical Education, University of Washington, Seattle, Washington, 1971-1972 |
| **Professional Experience** |
| 2020-Present | University Professor, University of Alabama at Birmingham |
| 2015- Present | Senior Scientist/Faculty—Informatics Institute, University of Alabama at Birmingham |
| 2013--Present | Professor -, Department of Medical Education, University of Alabama School of Medicine, Birmingham, Alabama (Secondary Appointment). |
| 2011--Present | Director, Center for Health Informatics for Patient Safety and Quality. Department of Health Services Administration, University of Alabama at Birmingham, Birmingham, Alabama. |
| 2008—Present | Leadership Team, Biomedical Informatics (BMI) (Director--2008-2011, Co-Director-2011-Present) UAB Center for Clinical and Translational Sciences, University of Alabama at Birmingham, Birmingham, Alabama. |
| 2006--Present | Senior Scholar – Lister Hill Center for Health Policy, University of Alabama at Birmingham |
| 2000--Present | Senior Scientist--Center for Outcomes and Effectiveness Research and Education, University of Alabama at Birmingham  |
| 1998 | Interim Co-Program Director - M.S. in Health Informatics Program, School of Health Related Professions, University of Alabama at Birmingham, Birmingham, Alabama.  |
| 1997-- Present | Professor - Department of Health Services Administration, M.S. in Health Informatics Program, School of Health Professions, University of Alabama at Birmingham, Birmingham, Alabama. |
| 1996 | Professor, Section of Medical Informatics, Division of General and Preventive Medicine, University of Alabama School of Medicine, Birmingham, Alabama (Secondary Appointment). |
| 1991--1997 | Professor of Education in Medicine and Associate Director - Office of Educational Development, University of Alabama School of Medicine, Birmingham, Alabama. |
| 1986--1991 | Associate Professor of Education in Medicine and Associate Director - Office of Educational Development, University of Alabama School of Medicine, Birmingham, Alabama. |
| 1984--1986 | Director - Center for Educational Resources and Research; Professor, Family and Community Medicine, University of Massachusetts Medical Center, Worcester, Massachusetts. |
| 1977--1984 | Associate Professor of Health Professions Education - Center for Educational Development, University of Illinois at Chicago, Health Sciences Center, Chicago, Illinois. |
| 1972--1977 | Assistant Professor of Medical Education - College of Medicine, University of Illinois, Chicago, Illinois. |
| 1970--1971 | Lecturer in Education - Northeastern University, Boston, Massachusetts. |

**Honors and Awards**

University Professor, University of Alabama at Birmingham, appointed June 4, 2020

Joseph F. Volker Outstanding Faculty Award, UAB School of Health Professions, 2020

Fellow, International Academy of Health Sciences Informatics, elected 2019

Provost’s Transformative Online Course Award, University of Alabama at Birmingham, 2016

Excellence in Scholarship Award, UAB School of Health Professions, 2016

One of Top 5 Most influential papers in Nursing Informatics (Moss and Berner, 2015), American Medical Informatics Association Nursing Informatics Working Group, 2015.

Quality Matters Certification for online course, HI 640 2015 HI 602, 2018, HI 611 2021

UAB Health System Innovation Award (Honorable Mention)--2015

Distinguished Reviewer, American Medical Informatics Association, Fall Symposium, 2012

Harriet Werley Award winning paper co-author (J. Moss, Award winner), American Medical Informatics Association, Fall Symposium, 2008

Fellow, Health Information and Management Systems Society, elected 2006

Distinguished Paper, American Medical Informatics Association, Fall Symposium, 2005

Fellow, College of Medical Informatics (ACMI), elected 1999

First Prize Award, Best Paper, American Association for Cancer Education Annual Meeting, 1996

Pi Lambda Theta (Education Honor Society), elected 1968

Phi Beta Kappa, elected 1967

**Membership in Professional Associations**

American Medical Informatics Association

Healthcare Information and Management Systems Society

Society to Improve Diagnosis in Medicine

# Publications

**Journal**

Goodman K, Hollis KF, Petersen, C, DeMuro P, Subbian V, Koppel R, Solomonides A, **Berner ES**, Pan E, Adler-Milstein J, and Lehmann CU (2022).Selecting Venues for AMIA Events and Conferences: Guiding Ethical Principles, J Am Med Inform Assoc, in press.

Zengul FD, Oner N, Ozaydin B, Hall AG, **Berner ES**, Cimino JJ, and Lemak CH (2022). Mapping 2 Decades of Research in Health Services Research, Health Policy, and Health Economics Journals. Medical Care, doi: [10.1097/MLR.0000000000001685](file:///C%3A%5CUsers%5Ceberner%5CAppData%5CRoaming%5CMicrosoft%5CWord%5C10.1097%5CMLR.0000000000001685).

Wei RT, Berner ES, Qu H, Agarwal G. (2021). Factors Associated with Telemedicine Utilization among Post-Transplant Patients at a University Kidney and Pancreas Transplant Center. Clinical Transplantation, doi: [10.1111/ctr.14578](file:///C%3A%5CUsers%5Ceberner%5CAppData%5CRoaming%5CMicrosoft%5CWord%5C10.1111%5Cctr.14578).

Nguyen OT, Turner K, Apathy NC, Magoc T, Hanna K, Merlo LJ, Harle CA, Thompson LA, Berner ES, Feldman SS. (2021). Primary care physicians’ electronic health record proficiency and efficiency behaviors and time interacting with electronic health records: A quantile regression analysis. J Am Med Inform, online ahead of print. doi: [10.1093/jamia/ocab272](file:///C%3A%5CUsers%5Ceberner%5CAppData%5CRoaming%5CMicrosoft%5CWord%5C10.1093%5Cjamia%5Cocab272) .

Bloomrosen M, Berner ES. (2021). Findings from the 2021 International Medical Informatics Association Yearbook Section on Health Information Management. Yearb Med Inform, 84-90.

Ozaydin B, Berner ES, Cimino JJ. (2021) Appropriate use of machine learning in healthcare. Intelligence-Based Medicine (5), 100041. <https://doi.org/10.1016/j.ibmed.2021.100041>

Bloomrosen M, Berner ES. (2020). Findings from the 2020 International Medical Informatics Association Yearbook Section on Health Information Management. Yearb Med Inform, 87-92.

Bloomrosen M, Berner ES. (2019). Findings from the 2019 International Medical Informatics Association Yearbook Section on Health Information Management. Yearb Med Inform, 65-70.

Lehmann C, Petersen C, Bhatia H, **Berner ES**, Goodman K. (2019) Advance Directives and Code Status Information Exchange: A Consensus Proposal for a Minimum Set of Attributes, Cambridge Quarterly of Healthcare Ethics, 28(1):178-185. (Selected as one of 3 “Best Papers” for 2019 in the special section on Ethics in Health Informatics of the 2020 Yearbook of Medical Informatics (DOI: 10.1055/s-0040-1702014)

Valenta AL, Berner ES, Boren S, et al. (2018). AMIA Board White Paper, AMIA 2017 Core Competencies for Applied Health Informatics Education at the Master’s Degree Level. J Am Med Inform Assoc., 25(12):1657-1668.

Peterson C, Berner ES, Embi PJ, Hollis KF, Goodman KW, Koppel R et al. (2018) AMIA’s code of professional and ethical conduct 2018.  J Am Med Inform Assoc. 25(11):1579-1582.

Bloomrosen M, Berner ES. (2018). Findings from 2017 on Health Information Management. Yearb Med Inform. (1):67-73.

Wilbanks BA, Berner, ES, Alexander GL, Azuero A, Patrician PA, Moss JA. (2018). The effect of data-entry template design and anesthesia provider workload on documentation accuracy, documentation efficiency, and user-satisfaction, Int J Med Inform. 118:29-35.

Berner ES. Diagnostic Error in Medicine: Implications for Clinical Laboratory Scientists. Annals of Clinical & Laboratory Science, 2017. 47(6), 649-656.

Bloomrosen M, Berner ES. (2017). Findings from the 2017 Yearbook Section on Health Information Management. Yearb Med Inform. 78-83.

Ritchie CS, Houston TK, Richman JS, Sobko HJ, Berner ES, Taylor BB, Salanitro AH, Locher JL. (2016). The E-Coach technology-assisted care transition system: a pragmatic

randomized trial. Transl Behav Med.6(3):428-437.

Berner ES, Dorsey AD, Garrie RL, Qu H. (2016) Assessment-based Health

Informatics Curriculum Improvement. J Am Med Inform Assoc. 23:813-818.

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Slight SP, Berner ES, Galanter W, Huff S, Lambert BL, Lannon C et al. (2015) Meaningful use: experiences from the field and future opportunities. JMIR Med Inform. 3(3):e30.

Neumeier H, Berner ES, Burke DE, Azuero A. (2015) Hospital budget increase for IT during Phase 1 Meaningful Use. Health Care Manager,34(2),157-165..

Dorsey AD, Clements K, Garrie RL, Houser SH, Berner ES.(senior author). (2015). Bridging the Gap: A Collaborative Approach to Health Information Management and Informatics Education. Applied Clinical Informatics, 6:211-223.

Moss JA, Berner ES.(2015) Evaluating Clinical Decision Support Tools for Medication Administration Safety in a Simulated Environment. Int J Med Inform;84:308-315..

Wyatt MC, Hendrickson RC, Ames M, Bondy J, Ranauro P, English TM, Bobitt K, Davidson A, Houston TK, Embi PJ, Berner ES (senior author). (2014) Federated Aggregate Cohort Estimator (FACE): An easy to deploy, vendor neutral, multi-institutional cohort query architecture. J Biomed Inform. 52:65-71.

Berner, ES. Burkhardt JH, Panjamapirom A, Ray, MN. (2014). Cost Implications of Human and Automated Follow-up in Ambulatory Care. AJMC:20(11 Spec No. 17)SP531-SP540.

Berner ES, Ray MN, Panjamapirom A, Maisiak RS, Willig JH, English TM, Krawitz M, Nevin CR, Houser S, Cohen MP, Schiff GD. (2014) Exploration of an automated approach for receiving feedback after outpatient acute care visits. J Gen Internal Med. 29(8):1105-1112.

Berner ES. (2014) Publications in Academic Medical Centers: Technology-Facilitated Culture Clash. Acad Med, 89 (5):734-737.

Mohan V, Abbott P, Acteson S, **Berner ES,** Devlin C, Hammond WE, Kukafka R, Hersh W (2014) Design and Evaluation of the ONC Health Information Technology Curriculum. J Am Med Inform Assoc, 21:509-516.

Berner ES. (2014) What can be done to increase the use of diagnostic decision support systems? Diagnosis. 1(1)119-123.

Wilbanks BA, Moss JA, Berner ES. (2013) An observational study of the accuracy and completeness of an anesthesia information management system (AIMS): Recommendation for documentation system changes. Comput Inform Nurs,31 (8):359-367. (also reprinted in Comput Inform Nurs 32:Topical Collection 5, TC216-TC224).

Houser SH, Ray MN, Maisiak R, Panjamapirom A, Willig J, Schiff GD, English T, Nevin C. Berner, ES. (senior author). (2013)Telephone follow-up in primary care: can interactive voice response calls work? Stud Health Technol Inform, 192:112-116. (Also presented at Medinfo 2013, Copenhagen Denmark, August 2013).

Weiss JB, Berner ES, Johnson KB, Giuse DA, Murphy BA, Lorenzi NM (2013). Recommendations for the design, implementation, and evaluation of social support in online communities, networks and groups. J Biomed Inform.46(6):970-976.

Simborg DW, Detmer DE, Berner ES. (2013)The wave has finally broken: Now what? Journal of the American Medical Informatics Association, 20:e21-e25.

Willig JH, Krawitz M, Panjamapirom A, Ray MN, Nevin, CR, English TM, Cohen MP, Berner ES (senior author).(2013) Closing the Feedback loop: An interactive voice response system to provide follow-up and feedback in primary care settings. J Med Syst, 37(2), 9905.

Payne TH, Bates DW, Berner ES et al. (2013) Healthcare information technology and economics. J Am Med Inform Assoc, 20:212-17.

Goodman KW, Adams S, Berner ES et al. (2013) AMIA’s Code of Professional and Ethical Conduct. J Am Med Inform Assoc. ,20:141-143.

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Goodman KW, Berner ES, Dente MA, et al. (2011). Challenges in ethics, safety, best practices, and oversight regarding HIT vendors, their customers and patients: a report of an AMIA special task force. J Am Med Inform Assoc, 18:77-81.

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Berner, ES and McGowan, JJ. (2010) Use of Diagnostic Decision Support Systems in Medical Education, Methods Inf Med; 49 (4): 412-417.

Locatis C, Berner ES, Hammack G, Smith S, Maisiak R, Ackerman M.(2010) An exploratory study of co-location as a factor in synchronous, collaborative medical informatics distance education. BMC Research Notes; 3(1):30.

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Yu FB, Menachemi N, Berner ES, Allison JJ, Weissman N, Houston TK. (2009). Full implementation of computerized physician order entry and medication-related quality outcomes: a study of 3364 hospitals. Am J Med Qual. 24(4):278-86.

Moss J, Berner E, Bothe O, Rymarchuk I. (2008). Intravenous medication administration in intensive care: Opportunities for technological solutions. Proceedings AMIA Fall Symposium, 495-499.

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Berner ES, Graber, ML. (2008) Overconfidence as a cause of diagnostic error in medicine. Amer J Med. 121(5A):S2-S23.

Yu F, Houston T, Ray M, Garner, D. and Berner E. (Senior author). (2007) Patterns of Use of Handheld Decision Support Tools in the Clinical Setting. Med Decis Making, 27(6):744-753.

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Berner, ES, Houston TK, Ray MN, Allison JJ, Heudebert GR, Chatham WW, Kennedy JI, Glandon GL, Norton PA, Crawford MA, and Maisiak RS. (2006) Improving ambulatory prescribing safety with a handheld decision support system: A randomized controlled trial. J Am Med Inform Assoc, 13, 171-179.

Berner, ES, Moss J. (2005) Informatics challenges for the impending patient information explosion. J Am Med Inform Assoc, 12, 614-617.

Berner, ES, Kasiraman, RK, Yu, F, Ray, MN, Houston, TK. (2005). Data quality in the outpatient setting: impact on clinical decision support systems. Proceedings AMIA Fall Symposium, 41-45.

Berner, ES, Sandhu AS, Goodman, KW. (2005) Consumer health informatics:ethics, evaluation and standards. Acta Bioethica, 11(2), 133-144.

Menachemi, N, Shewchuk, RM, O’Connor, SJ, Berner, ES, Allison, JJ. (2005) Perceptions of medical errors by internal medicine residents: Development and validation of a new scale. Quality Management in Health Care.14(3), 144-154.

Berner, ES, Detmer, DE, Simborg, D. (2005) Will the wave finally break? A brief view of the adoption of electronic medical records in the United States. J Am Med Inform Assoc 12(1)3-7.

Phillips, MT and **Berner, ES**. (2004). Beating the system—pitfalls of bar code medication administration. J Healthcare Information Management, 18(4), 16-18.

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Berner, ES, Savage, GT, Houston, TK, Williams, ES, Crawford, MA and Ray, MN. (2004) Impact of patient feedback on residents’ handheld computer use: a multi-site study. Medinfo 2004, 582-586.

Adams, B, **Berner, ES** and Wyatt, JR. (2004) Applying strategies to overcome user resistance in a group of clinical managers to a business software application: A case study. J Organizational and End User Computing,16(4) 55-64.. (reprinted as: Chapter IX in M. A. Mahmood, ( (Editor). Advanced Topics in End User Computing, Volume 4. Hershey, PA: Idea Group Publishing, 2005, 174-185).

### Berner, ES. and Adams, B. (2004) Added value of video compared to audio lectures for distance learning. International Journal of Medical Informatics. 73(2), 189-193.

### Moore, RA and Berner, ES. (2004) Assessing graduate programs for healthcare information management (HIM/T) executives. International Journal of Medical Informatics, 73(2), 195-203.

McGowan, JJ and **Berner, ES**. (2004) Proposed curricular objectives to teach physicians competence in using the World Wide Web. Academic Medicine, 79(3), 236-240.

**Berner, ES.** (2003) Diagnostic Decision support systems: how to determine the gold standard. J Am Med Inform Assoc, 10 (6), 608-610.

**Berner, ES**, Maisiak, RS, Heudebert, GR and Young, KR, Jr. .(2003) Clinician performance and prominence of diagnoses displayed by a clinical diagnostic decision support system. Proceedings AMIA Fall Symposium, 76-80.

Houston, TK, Ray, MN, Crawford, MA, Giddens,T and **Berner, ES**. (2003) Patient perceptions of physician use of handheld computers. Proceedings AMIA Fall Symposium, 299-303.

**Berner, ES**, Baker, CS, Funkhouser, E, Heudebert, GR, Allison, JJ, Fargason, CA, Li, Q, Person, SD and Kiefe, CI. (2003). Do local opinion leaders augment hospital quality improvement efforts? a randomized trial to promote adherence to unstable angina, Guidelines. Medical Care, 41, 420-431.

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Berner, ES, McGowan JJ, Hardin JM, Spooner AS, Raszka WV, Berkow RL.(2002).

A model for assessing information retrieval and application skills of medical students..

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Maisiak, R.S. and **Berner, E.S.** (2000) Comparison of measures to assess change in diagnostic performance due to a decision support system. Proceedings AMIA Fall Symposium, 532-536.

**Berner, E.S**., Maisiak, R.S., Cobbs, C.G., and Taunton, O.D. (1999). Effects of a decision support system on physician diagnostic performance, J Am Med Inform Assoc, 6, 420-427.

**Berner, E.S**. and Maisiak, R.S. (1999). Influence of case and physician characteristics on perceptions of decision support systems. J Am Med Inform Assoc, 6, 428-434.

**Berner, E.S**. Differential diagnosis. (1999). In Middleton, B., editor, Clinical Decision Support Systems, Journal of Healthcare Information Management, 13(2), 33-42.

**Berner, E. S.,** Partridge, E. E. and Baum, S. (1997).The effects of the PDQ patient information file (PIF) on patients’ knowledge, enrollment in clinical trials and satisfaction. Journal of Cancer Education, 12(2), 121-5.

**Berner, E. S.**, Jackson, J. R. and Algina, J. (1996). Relationships among performance scores of four diagnostic decision support systems. J Am Med Inform Assoc, 3, 208-215.

**Berner, E. S.** and Boulware, D. W. (1996). Medical informatics for medical students: Not just because it's there. Medical Education Online, 1,3. http://www.med-ed-online.org/f0000001.htm#f0000001 ([Complete Online Article](http://www.med-ed-online.org/f0000001.htm#f0000001)).

**Berner, E. S.** (1996). Computer-assisted diagnosis--consensus and controversies. Journal of the Irish Colleges of Physicians and Surgeons, 25(1), 43-46.

**Berner, E. S.**, Webster, G. D. and Shugerman, A. A., et al. (1994). Performance of four computer-based diagnostic systems. N Eng J Med, 330(25), 1792-1796.

**Berner, E. S**., Brooks, C. M. and Erdmann, J. B. (1993). Use of the USMLE to Select Residents. Academic Medicine, 68(10), 753-759.

Phelan, S. T., Jackson, J. R. and **Berner, E. S**. (1993). Comparison of problem-based and traditional education on student performance in the OB/GYN clerkship. Obstetrics and Gynecology, 82(1), 159-161.

**Berner, E. S.** (1993). The problem with software reviews of decision support systems. M.D. Computing, 10(1), 8-12.

**Berner, E. S.** and Shugerman, A. A. (1991). "Needs Assessment for Diagnostic Decision Support Systems (DDSS)", in Proceedings of the Fifteenth Annual Symposium of Computer Applications in Medical Care. Washington, DC: McGraw Hill, Inc., 605-608.

Boker, J. R. and **Berner, E. S.** (1990). Summary Report of testing the NBME computer-based examination at the University of Alabama. In S. G. Clyman and N. A. Orr, "Status Report on the NBME's computer-based testing." Academic Medicine, 65, 235-241.

**Berner, E. S.,** Brooks, C. M., Miller, R. A., Masarie, F. E., Jr. and Jackson, J. R. (1989). Evaluation issues in the development of expert systems in medicine. Evaluation and the Health Professions, 12(3), 270-281.

**Berner, E. S.** and Brooks, C. M. (1988). "Needs assessment for computer-based medical decision support systems," in Proceedings of the Twelfth Annual Symposium of Computer Applications in Medical Care. Washington, DC: Computer Society of the IEEE, 232-236.

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**Berner, E. S.**, Coulson, L. R. and Schmitt, B. P. (1985). A method to determine faculty attitudes toward use of laboratory tests. Journal of Medical Education, 60, 374-378.

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**Berner, E. S.** (1984). Paradigms and problem-solving - a literature review. Journal of Medical Education, 59, 625-633.

Lazarus L.W. and **Berner E.S.** Continuing education for mental health professionals and paraprofessionals—process, problems and solutions. Journal of Psychiatric Education. 1981 5(3):238-247.

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Lukas, T., **Berner, E. S.** and Kanakis, C. (1977). Diagnosis by smell? Journal of Medical Education, 52, 349-350.

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Wasyluk, J. and **Berner, E. S**. (1977). Development and evaluation of the specialty examination in Internal Medicine in Poland. Medical Education, 11(6), 399-403.

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**Berner, E. S.** and Tremonti, L. P. (1976). The attainment of specified objectives by medical students in different learning environments. British Journal of Medical Education, 10, 167-169.

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**Books/Book Chapters/Monographs**

Berner ES. Chapter in Kulikowski C, Mihalas G, Yacubsohn Y, Greenes R, Park H-A. (2021) International Medical Informatics and the Transformation of Healthcare. Canada: Healthcare Computing &Communications Canada &IMIA, 293-295.

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McGowan, J.J. and Berner, E.S. (2002) Chapter 17: Computers in Medical Education. In Norman G. R., Van der Vleuten, C.P.M. and Newble, D.I.(eds.) International Handbook of Research in Medical Education. Dordrecht: Kluwer, 537-79.

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**Published Abstracts**

Adams WG, Anderson N, Berner ES, Schauer DP, Zottola RJ, McClure ES, Wyatt M (2013). Distributed Health Outcome Monitoring and Evaluation Using i2b2. AMIA Summits Transl Sci Proc 2013: 2.

Saini D, Orthner H, Berner E, Mirza M, Godwin CJ, Brown TB.(2008). Expert Verification of the Knowledge Base of FEED A Feedback Expert System for EMS Documentation. Proceedings AMIA Fall Symposium, 1120.

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Berner E.S. and Maisiak, R.S. (1999) User Interaction and Decision Support System Performance. Proceedings, AMIA Fall Symposium, 1027.

Kiefe CI, Allison JJ, Heudebert G, Berner E, Funkhouser E, Weissman, NW. (1999). Variability in the Care for Patients with Unstable Angina: are Secular Trends Predicted by Hospital Characteristics? Journal of  General Internal Medicine, 14 (Supp 2), 104.

Berner, E. S., Dev, P., Smith, N.B., and Harding, S.M. (1998) Strategy for Efficient Construction of Multimedia Case Simulations. Proceedings, AMIA Fall Symposium, 974.

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**Letters to the Editor/Editorials/Other**

Berner ES. The moral argument for masks. JAMA. July 22, 2020 (Online Comment in response to Wang X, Ferro EG, Zhou G, Hashimoto D, Bhatt DL. Association Between Universal Masking in a Health Care System and SARS-CoV-2 Positivity Among Health Care Workers. JAMA. 2020 Jul 14;324(7):703–4. (Available at https://jamanetwork.com/journals/jama/fullarticle/2768533)

Berner ES. Capsule Commentary on Bond et. al., Real-time feedback in Pay-for-Performance: Does more information lead to improvement? J Gen Intern Med, 2019, 34(9): 1852. doi: 10.1007/s11606-019-05146-9.

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Berner ES. (2008) Implementation Challenges for Clinical and Research Information Systems: Recommendations from the 2007 Winter Symposium of the American College of Medical Informatics (Introduction to special section)Journal of the American Medical Informatics Association, 15(3), 281-82.

Berner ES, Miller RA, Graber ML.(2007) Missed and delayed diagnoses in the ambulatory setting. Annals of Internal Medicine, 146(6), 470. (Letter to the Editor)

Yu FB, Allison JJ, Berner ES, Houston TK. CPOE in the United States. Health Affairs, 2006/ 25(2):567. (Letter to the Editor).

Berner, ES. Clinical Case. Confusion over Cholesterol Testing, Commentary 2. Virtual Mentor (Online Ethics Journal of the American Medical Association), December 2004.;6(12).

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Berner, E.S. (1998) Monitoring and regulating clinical software. Annals of Internal Medicine, 128(12), 1049-1050.

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Berner, E. S. and Risley, B. (1984). Teaching clinical medicine by iterative hypothesis testing. The New England Journal of Medicine, p. 600-601.

Berner, E. S. (1978). Review of "The Presentation of Original Work in Medicine and Biology" by Hugh Dudley, M.D. In Journal of Investigative Dermatology, 70, 56.

**Professional Presentations**

**Invited Presentations**

Berner ES (September, 2021). Tips for Describing Teaching Experience. Regenstrief Institute Public Health Informatics Program, Indianapolis, IN.

Berner ES (November, 2020). Informatics Education in Healthcare: Lessons Learned. JIS Go Live. Buenos Aires, Argentina.

Berner ES (February, 2020). (Co-authors: Winter Williams, M. Tosi Gilford, Heather Hallman, Neena Xavier, Kevin Riggs) UAB Informatics Institute Clinical Informatics Power Talks: Diagnostic Decision Support Systems: An Educational Intervention to Increase Use. Birmingham, AL.

Berner ES. (February 2020) Teaching the Use of Clinical Decision Support Systems. (Co-authors: M. Tosi Gilford, Heather Hallman, Kevin Riggs, Winter Williams, Neena Xavier). Diagnosis Learning Collaborative (DxLC) Conference, Albuquerque, NM.

Berner ES. (October 2019) Teaching the Use of Clinical Decision Support Systems. (Co-authors: M. Tosi Gilford, Heather Hallman, Kevin Riggs, Winter Williams, Neena Xavier). Medical Education Research Interest Group, UAB School of Medicine, Birmingham, AL

Berner ES (October, 2019). (Co-authors: Mark L. Graber, Evita M. Payton) UAB Informatics Institute Clinical Informatics Power Talks: Physician Performance and Preference for Clinical Data in Structured and Unstructured Formats Birmingham, AL.

Berner ES. (November, 2018). Video presentation on Clinical Decision Support Systems. Presentation at Jornadas Universitarias de Sistemas de Informacion en Salud, Buenos, Aires, Argentina. <https://www.youtube.com/watch?v=kcTadJvbW-k>

Berner ES. (November, 2018). Desaficios en la Evaluacion de CDSS (Challenges in the Evaluation of CDSS) Presentation at Jornadas Univeristarias de Sistemas de Informacion en Salud, Buenos, Aires, Argentina.

Berner ES. (November, 2018). El futuro de la Informatica in Salud y los SIS (The future of health informatics and health IT) Presentation and panel discussion at Jornadas Universitarias de Sistemas de Informacion en Salud, Buenos, Aires, Argentina.

Berner ES. (November, 2017). UAB Informatics Institute Journal Club Presentation/Discussion on. ”Scheepers-Hoeks et al. Physicians’ responses to clinical decision support on an intensive care unit—comparison of four different alerting methods, 2013”

Berner ES. (September, 2017). Workforce Training for Health IT Professionals & Educators: Staying Current in the Changing Healthcare Environment. Webinar presenter. Office of the National Coordinator for Health IT.

Berner ES (May 2017). Overview of Diagnostic Errors in Medicine. Presented at the annual meeting of the Association of Clinical Scientists, Birmingham, AL.

Berner ES. (October, 2016). UAB Informatics Institute Journal Club Presentation/Discussion on. ”Berner et al. Performance of Four Computer-Based Diagnostic Systems, New England Journal of Medicine, 1994.”

Berner ES. (September, 2014). Diagnostic Decision Support Tools: Why Aren’t They Used More? Medical Grand Rounds. Department of Medicine, University of Alabama at Birmingham, Birmingham, AL.

Berner ES. (March, 2014). Decision Support Tools for Providers and Patients. Panel on “How Can Innovative Uses of Technology Be Harnessed to Improve Medication Management?” Presented at AHRQ CERTs Conference on “Promoting Appropriate Medication Use: A Collaborative Strategy” Gaithersburg, MD.

Berner ES. (January, 2014). EMR Integration and Genomic Medicine Implementation. Reactor presentation. Future Directions for the eMERGE Network, National Human Genome Research Institute, Bethesda, MD (Conducted via [webinar](http://www.youtube.com/watch?v=61m1KUfcChg)).

Berner ES. (May 2013) Big Data Challenges in Sharing and Utilizing Clinical Data. UAB Big Data 1 Workshop. UAB Alumni House, Birmingham, AL

Berner, ES (Sep, 2012). Overview of Informatics Pathology Informatics Lecture Series, University of Alabama at Birmingham, Birmingham, AL.

Berner ES. (April, 2012). UAB Electronic Medical Record and Clinical Data Warehouse: Current Status and Future Directions. Information Management Group, The Children’s Hospital of Alabama, Birmingham, AL.

Berner ES and Willig J.( March, 2012). UAB Electronic Medical Record and Clinical Data Warehouse: Current Status and Future Directions. Works in Progress Seminar, Center for Outcomes and Effectiveness Research and Education, University of Alabama at Birmingham, Birmingham, AL.

Berner, ES (January, 2012). Overview of Informatics. Pathology Informatics Lecture Series, University of Alabama at Birmingham, Birmingham, AL.

Berner ES. (April, 2011). ONC HIT Workforce Program. Atlanta Area Informatics Group, Atlanta, GA.

Berner ES (March, 2011). Strategies to Close the Feedback Loop in the Ambulatory Setting. Creighton University Center for Health Services Research and Patient Safety, Meet the Researcher Series. Delivered online as a Webinar.

Berner, ES (December, 2010). HIT Curriculum Development Centers. Presented at the ONC All Grantee Meeting, Washington, DC.

Berner, ES. (June 2010). Closing the Feedback Loop to Improve Diagnostic Quality. Presented at the AHRQ Annual HIT Grantee Meeting, Bethesda, MD.

Berner, ES (November, 2009). Using Electronic Clinical Decision Support Tools. Presented at the Annual Meeting of the American Society of Consultant Pharmacists, Anaheim, CA.

Berner, ES. (July, 2009). Health Information Technology in the American Recovery and Reinvestment Act. School of Business, University of Alabama at Birmingham, Birmingham, AL.

Berner, ES. (May, 2009). Fostering Collaboration in Online Education. Presented at Learning in a Networked World. UA System Scholars Institute II at the University of Alabama at Birmingham, Birmingham, AL.

Berner, ES. (April, 2009) Case Study in an On-line Environment. Presented at UAB Teaching with Technology Series. University of Alabama at Birmingham, Birmingham, AL.

Berner, ES. (August, 2008) Clinical Decision Support Systems. First presentation as part of Clinical Decision Support Systems—Critical Health IT Tools for Interoperable Health Information Exchange. A tool to improve HIEs for Medicaid and SCHIP Agencies: An Overview of Characteristics, Components and Approaches. AHRQ Medicaid-SCHIP TA Webinar. .

Berner ES.(October , 2006) Impact of a PDA-Based Decision Support System for Risk Assessment in Prescribing Nonsteroidal Anti-Inflammatory Drugs. Presented at the 92nd Clinical Congress of the American College of Surgeons, Chicago, IL.

Berner, ES and the ACMI Scientific Affairs Committee. (June, 2006). Knowledge Management for Clinical Decision Support. Presented at the 2006 Annual Patient Safety and Health Information Technology Conference, Washington, DC.

Berner, ES (November, 2005). PDAs for Decision Support at the Point-of-Care: Lessons Learned. Presented at the Johns Hopkins University Conference on Information Technology at the Clinical Interface, Baltimore, MD.

Berner, ES (August 2005). Clinical Decision Support Systems. Presented at the Alabama Society of Clinical Informatics, Birmingham, AL.

Berner. ES. (November, 2004) Improving Primary Care Patient Safety with Handheld Decision Support Systems: Successes and Challenges. HI 696 Seminar, University of Alabama at Birmingham, Birmingham, AL.

Berner, ES (October, 2004). The Integration of Informatics into Healthcare: Why Now? Pathology Informatics Lecture Series, University of Alabama at Birmingham, Birmingham, AL.

Berner, ES. (August 2003). Improving Primary Care Patient Safety with Handheld Decision Support Systems. Presented at “Medical Errors and Patient Safety: The Role of Information Technology. Center for Outcomes and Effectiveness Research and Education, University of Alabama at Birmingham, Birmingham, AL.

Berner ES. (May 2003) Improving Primary Care Patient Safety with Handheld Clinical Decision Support Systems. Spring Meeting of the Alabama Chapter of the Healthcare Information and Management Systems Society, Birmingham, AL

Berner, ES (September, 2002). The Integration of Informatics into Healthcare: Why Now? Pathology Informatics Lecture Series, University of Alabama at Birmingham, Birmingham, AL.

Berner, ES and Ray, MN. (July 2002). Improving Primary Care Patient Safety with Handheld Decision Support Systems. Invited presentation to the Advisory Council of the Agency for Healthcare Research and Quality Annual Meeting.

Berner, ES. (July, 2001). E-Medicine. Presented at Birmingham Southern College, Birmingham, AL.

Berner, ES. (July, 2001). HIPAA: Implications for Faculty, Students and Curriculum. Faculty Development Workshop, UAB, School of Health Related Professions, Birmingham AL.

Berner, ES. (June, 2000). Clinical Decision Support Systems. Presented at Medical Informatics Grand Rounds, Eastern Main Healthcare, Bangor, ME (included live and teleconference presentation).

Berner, E.S. (May, 2000). What Does it Take to Educate Tomorrow's Healthcare IT Executives? Healthcare Informatics 2000 Expo and Conference, Chicago, IL.

Berner, E.S. (April, 2000). Differential Diagnosis Decision Support Systems. Panel member, Clinical Decision Support Systems (Blackford Middleton, MD, chair). 2000 Annual Conference of the Healthcare Information and Management Systems Society (HIMSS), Dallas, TX.

Berner, E.S. (March, 2000). The Integration of Informatics into Healthcare: Why Now? Teaching Scholars Lecture, University of Arkansas for Medical Sciences, Little Rock, AR.

Berner, E.S. (May, 1998). Development of a Model Assessment in Information Retrieval and Application. National Board of Medical Examiners, Philadelphia, PA

Berner, E.S. (May, 1998). Educational Research Issues. Panel member, Research Issues to Achieve the Virtual Library. American Medical Informatics Association Spring Congress, Philadelphia, PA.

Berner, E.S. (December, 1995). Design and Execution of Evaluations of Diagnostic Decision Support Systems. Workshop on Evaluation of Knowledge-Based Systems. National Library of Medicine, Bethesda, MD.

Berner, E. S. (April, 1995). Educational Implications of Computerized Decision Support Systems. Invited address. American Educational Research Association Annual Meeting, San Francisco, CA.

Berner, E. S. (March, 1995). Panel member: Hands-on Diagnostic Software. American College of Physicians Annual Session, Atlanta, GA.

Berner, E. S. (January, 1993). Computers As Diagnostic Consultants: How to Judge Their Worth. Alabama Chapter of the Healthcare Information and Management Systems Society, Birmingham, AL.

Berner, E. S. (October, 1990). Models of Critical Thinking. Conference on Critical Thinking in Physical Therapy, Birmingham, AL.

Berner, E. S. and Brooks, C. M. (June, 1990). Evaluation of Computer-Based Instructional Programs. American Medical Informatics Association Annual Meeting, Snowbird, UT.

Ravitch, M., Schmidt, H. and Berner, E. (October, 1984). Symposium on Problem-based Learning. Group on Problem-Based Learning, Association of American Medical Colleges, Chicago, IL.

Berner, E. S. (October, 1979). Assessment and Evaluation of Medical Problem Solving. Conference on the Role of Problem Solving in Medicine, Jeffersonville, VT.

**Other Presentations**

Johnson T, Feldman S, Jones J, Berner E, Borbolla D, Deckard G, Manos L, Roderer N, Valenta A. (October, 2021) Delineation of Practice and Foundational Domains: Tools for Seeking Alignment. Presentation at AMIA Academic Forum, San Diego, CA.

Hales J, Berner ES, Ivory C, Valenta A, Earhart C, Turner E. (May, 2021). What’s an ACHIP™? An Introduction to AMIA Health Informatics Certification (AHIC™). Panel presentation at AMIA Virtual Clinical Informatics Conference.

Groom E, Islam S, Martin HD, Richardson C, Berner ES, Feldman S. (January, 2021) 2020 HIMSS Student Case Competition. Panel Member-Faculty Perspective. Presentation at Alabama HIMSS Webinar.

Feldman S, Boren S, Moxley D, Garza C, and Berner ES.( November, 2019) Tracking AMIA Health Informatics Educational Domains: Lessons Learned from a Pilot Test. Presentation at AMIA Fall Symposium, Washington, DC.

### Feldman, S., Garza, C., & Berner, E. S. (June, 2019). Using Canvas to Track AMIA Health Informatics Educational Domains for CAHIIM Accreditation: Lessons Learned from a Pilot Test. In American Medical Informatics Association Informatics Educators' Forum. St. Louis, MO.

### Valenta, A., Berner, E. S., Boren, S. A., Feldman, S. S., Johnson, T., & Jones, J. (June, 2019). Defining, Achieving, and Assessing Competencies across the AMIA Foundational Domains. In American Medical Informatics Association Informatics Educators' Forum. St. Louis, MO.

### Zozus, M. N., Lehmann, H., Harlan, J., Williams, T., & Berner, E. S. (June, 2019). Models and Measures for Systematic Program Evaluation in Biomedical Informatics Graduate Degree Programs. In AMIA Educators' Forum. St. Louis, MO..

### Krukas A, Hoffman D, Kandaswamy S, Blumenthal J, Weldon, D, Stein L, Berner ES, Hettinger AZ. (March 2019). Trigger Identification of High Risk Medication Orders: Potassium as an Example Study. Poster presented at International Symposium on Human Factors &Ergonomics in Healthcare, Chicago, IL.

### Zengul F, Berner ES, Lemak C, Oner N, Ozaydin B, Delen D. (June, 2018) Revealing the themes and trends in health services policy research: a text-mining approach. Poster presentation at Academy Health, Seattle WA.

### Valenta A, Johnson T, Manos L, Jones J, Berner ES. (June, 2018) Pathways to Competency-Driven Curricula for Health Informatics Programs. Panel presentation at AMIA Informatics Educator's Forum, New Orleans, LA.

### Berner ES. (February, 2018). Education on Informatics and Value-based Care: Lessons from the ONC Workforce Training Program. Presentation at the American College of Medical Informatics Winter Symposium, Scottsdale, AZ

### Ozaydin, B.; Feldman, S.; McNeill, L.; Dorsey, A.; Bruck, M.; Berner, E. (November, 2017) Innovative Approaches in Informatics Education. . Poster presentation at the AMIA Fall Symposium, Washington, DC.

### Valenta, A. (and the AMIA Accreditation Committee) (June, 2017). Transitioning to Competency Domains in Health Informatics Education: Where are we and where are we going? (Role: Faculty) Inspire 2017 Preconference Workshop, AMIA Inspire Conference, La Jolla, CA

### Fenton SH, Berner ES, Hersh B, Kukafka R, Lehmann H. Updating the ONC Health IT Curriculum and Using it to Provide Training for Incumbent Health IT Professionals (June 2017). Presented at the AMIA Inspire Conference, La Jolla, CA

### Bruck M, Fenton S, Ainley S, Berner ES.(February, 2017) The New ONC Health IT Curriculum: Lessons Learned in Developing and Using the Materials. Presented at the 12th Annual AUPHA Academic Forum, HIMSS-2017, Orlando, FL.

### Booth J, Berner ES, Alsip J.(November, 2015). Development and implementation of a Floor Admit Reevaluation Alert (FARA) in a large academic emergency department. Poster presentation at the AMIA Fall Symposium, San Francisco, CA.

### Slight AP, Berner ES, Galanter B, Huff S, Lambert BL, Lannon C et al. (November, 2015) Are Meaningful Use Requirements Really Meaningful for Medication Use? Experiences from the Field and Future Opportunities. Podium presentation at the AMIA Fall Symposium, San Francisco, CA.

### Berner ES. Houser SH, Ray MN. (March 2015).Impact of Automated Follow-Up After Outpatient Acute Care Visits. Forum on Advances in Health Management Research. ACHE 2015 Congress on Healthcare Leadership, Chicago, IL.

### Wyatt M, Berner E, Hendrickson R, Davidson A, Bondy J, Ames M, Embi P, Ervin, D Houston T, Zottola R, Wang S, Thota N, Ranauro P. (March, 2013) A model for secure multi-institutional cohort query. Presented as a poster at the AMIA Summit on Clinical Research Informatics, San Francisco, CA.

### Adams WG, Anderson N, Berner ES, Schauer DP, Zottola RJ, McClure ES, Wyatt M.(March, 2013) Distributed Health Outcome Monitoring and Evaluation Using i2b2. Presented at the AMIA Summit on Clinical Research Informatics, San Francisco, CA.

### Berner E et al. (March, 2013) Automated Follow-up of Patients in Ambulatory Care: Physician and Patient Views. Presented at the 8th Annual AUPHA Academic Forum, HIMSS-2013, New Orleans, LA.

### Volk L, Redden L, Williams D, Pollard S, Berner E, Panjamapirom A, Glandon G, Burkhardt J. (November, 2012) Use of a Health Information Exchange Tool in Community-based Ambulatory Care Practices in Tennessee. Poster presentation at the AMIA Fall Symposium, Chicago, IL.

### Wyatt MC, Hendrickson RC, Thota N, Bobitt K, Ervin D, Ranauro P, Ames MJ, Bondy J, Dempsey D, English TM, Wang S, Zottola R, Davidson A, Houston TK, Embi PJ, Berner ES. (November, 2012) A Model for Secure Multi-Institutional Cohort Query. Presented at the CTSA Informatics Key Function Committee meeting, Chicago, IL.

### Bobitt K, Thota N, Hendrickson RC, Ranauro P, Wyatt M, Berner ES. (November, 2012) Querying i2b2 via a RESTful Interface Presented as a poster at the CTSA Informatics Key Function Committee meeting, Chicago, IL.

### Berner ES, Panjamapirom A, Burkhardt JH, Glandon GL, Volk LA, Rothschild JM. (February 2012). Primary Care Physicians’ Use of a Payor-Based Electronic Health Record: Lessons Learned. Presented at the AUPHA Academic Forum, HIMSS 2012 Annual Conference, Las Vegas, NV.

### Berner ES, Crasto CJ, Lefkowitz EJ, Lyons SA, Vucovich LA, Wyatt MC. (October, 2011) An informatics course based on the CTSA informatics competencies. Poster presentation at the CTSA Informatics Key Function Committee meeting, Bethesda, MD.

### Willig JH.. Wyatt, MC, Kelly, A, Chekkilla, V, Guzman, A, Rinehart, D, Thogaripally, S, Gordon, G, Hicks, J, Berner, ES, Kvale E. (October, 2011). A method for standardized patient reported outcome data collection at the point of care. Poster presentation at the CTSA Informatics Key Function Committee meeting, Bethesda, MD.

### Houser SH, Ray MN, Maisiak RM, Panjamapirom A, Willig J, Schiff G, English T, Nevin C, and Berner E (May 2011). Do interactive voice response systems as a patient follow up approach increase patient satisfaction? Poster Presentation at the American Medical Informatics Association, Public Health Informatics 2011 Conference, Orlando, FL.

### Maisiak RM, Ray MN, Panjamapirom A, Houser SH, Willig J, English T, and Berner ES. (April, 2011). The General Medication Adherence (GMA) Scale: Psychometric Assessment of a New Scale for the Primary Care Setting. Poster presentation at the Social and Behavior Medicine Conference. Washington DC,

### Berner, ES. Perspectives on CRI Education. (March 2011) Panel Organizer and Panel Presentation. Summit on Clinical Research Informatics, San Francisco, CA.

### Ray MN, Willig J, Cohen MP, Panjamapirom A, English TM, Schiff GD, Berner ES (senior author). (June, 2010). Follow-up Phone Calls to Improve Patient Safety in Primary Care. Poster Presentation, AHRQ Health IT Grantee Annual Conference, Bethesda, MD.

### Berner, ES. (March, 2010). Informatics Education for Clinical and Translational Researchers: Activities from the CTSA Program (Panel presentation). Clinical Research Informatics Summit, San Francisco, CA.

### Wyatt M; Robinson J, Gordon G, Sandefur J, Pillai R, Pochana P, Hendrickson R, Day T, Osborne J, Pavgi S, Lefkowitz, E, and Berner E.(Senior author). (March, 2010). DASI –A Federated Data Access and Sharing Initiative. Poster presentation at the Clinical Research Informatics Summit, San Francisco, CA.

### Wyatt M; Robinson J-P, Gordon G, Sandefur J, Pillai R, Pochana P, Hendrickson RC, Day T, Osborne J, Pavgi S, Li W, Lefkowitz, E, and Berner ES. (Senior author).( October , 2009). DASI – The Data Access and Sharing Initiative. Poster presentation at the CTSA Informatics Key Function Committee meeting, Bethesda, MD.

### Wyatt M, Gazzala H, Li Wei, McDonald K, Gordon G, Parrish E, Lefkowitz E, Berner, ES. (Senior author). (October, 2009). Collection of Research Data within the Clinical Setting. Poster presentation at the CTSA Informatics Key Function Committee meeting, Bethesda, MD.

### Berner ES, Ray MN, Schiff GD, Wears RL, Willig J, Cohen MP, English TM, Panjamapirom A, Houser S, Burkhardt J. (September, 2008).Closing the Feedback Loop to Improve Diagnostic Quality. Poster presentation at AHRQ Annual Conference, Bethesda, MD.

### Moss J and Berner ES. (September, 2008). Designing Clinical Decision Support for Medication Administration Safety. Poster presentation at AHRQ Annual Conference, Bethesda, MD.

### Ray MN, Berner ES, Schiff GD, Wears RL, Willig J, Mugavero M, English T, Cohen M. (May, 2008). Closing the Feedback Loop to Improve Diagnostic Quality. Poster presentation at Diagnostic Error in Medicine Conference, Phoenix, Arizona.

### Moss, J., Berner, E. (February, 2008). Intravenous medication administration in intensive care. Poster presented at the 22nd Annual SNRS Research Conference, Birmingham, Alabama.

### Berner, ES. (November, 2007) Diagnosis and Diagnostic Decision Making:Strategies for Decision Support. Presented at the Annual Symposium of the American Medical Informatics Association, Chicago, IL.

### Berner ES. (August, 2007) Unintended Consequences of Clinical Decision Support Systems. Presented at Medinfo 2007, Brisbane, Australia.

### Berner, ES. (November, 2006). Diagnostic Decision Support Systems: Why Aren’t They Used More and What Can We Do About It? American College of Medical Informatics Senior Member Presentation at the AMIA Fall Symposium, Washington, DC.

### Glandon GL, Maisiak RS, and Berner ES. (February, 2006).Can Handheld Decision Support Tools Increase Qualiity and Save Physicians Time? Presented at the Academic Forum of the 2006 Annual Healthcare Information and Management Systems Society, San Diego, CA.

### Houston TK, Robinson, Kl, Berner E, Panjamapirom A, Fouad M, Partridge E.(January, 2006). Bridging the Digital Divide: Feasibility of Training Community Health Advisors to Use the Internet for Health Outreach. Presented at the 39th Annual Hawaii International Conference on System Sciences, Kauai, HI.

### Yu FB, Berner ES, Allison AJ, Houston TK. (June 2005). Association of Hospital Ownership and Resource Availability with Implementation of Computerized Physician Order Entry (CPOE). Podium presentation at 2005 National Research Service Award Annual meeting and Poster Presentation at Academy Health 2005 Annual Research Meeting, Boston, MA.

### Berner. ES. (June, 2005). Improving Primary Care Patient Safety with Handheld Decision Support Systems. Presented as part of the Product Café at the 2005 Annual Patient Safety and Health Information Technology Conference, Washington, DC.

### Berner ES, Galt K. and Johnson KB. (September, 2004).Effectiveness of PDA Use to Improve Patient Safety. Presentation at Making the Health Care System Safer—Third Annual Patient Safety Research Conference. Alexandria, VA.

### Berner ES, Ray MN, Kennedy, JI and Houston, TK. (November, 2003) Patient Safety: Computer-Based Decision Support Systems in Ambulatory Settings. Presentation at Southern Medical Association's 6th Annual Scientific Assembly. Atlanta, GA .

### Berner, E.S. and Adams, B. (April, 2003). Added Value of Video Compared to Audio Lectures for Distance Learning. Presented at Teach Globally, Learn Locally: Innovations in Health and Biomedical Informatics Education in the 21st Century. International Medical Informatics Association Working Group for Education Conference. Portland, OR.

### Moore, RA and Berner, ES. (April, 2003). Assessing Graduate Programs for Healthcare Chief Information Officers (CIOs). Presented at Teach Globally, Learn Locally: Innovations in Health and Biomedical Informatics Education in the 21st Century. International Medical Informatics Association Working Group for Education Conference. Portland, OR.

Berner, E.S. Houston, T.K., Ray, M.N. et al. (March, 2003). Improving Primary Care Patient Safety with Handheld Decision Support Systems. Poster presentation at Making the Healthcare System Safer: Second Annual Patient Safety Research Conference, Alexandria, VA.

Berner, E.S. and Houser, H. (November, 2002) Ethical and Legal Issues in Health Informatics Presented as part of panel on Ethics in Informatics Education, American Medical Informatics Association Annual Symposium, San Antonio, TX.

Berner, E.S. and Hardin, J.M. (June, 2002) Assessing Learning Outcomes of an Online Course in Health Informatics. Poster Presentation at the Association of University Programs in Health Administration, Washington, DC.

Berner, ES. (November, 2001). Distributed Learning in Health Informatics. Organizer and Presenter, Panel Presentation, American Medical Informatics Association Fall Symposium, Washington, DC.

Berner, E.S. and Hardin, J.M. (October, 2001) Assessing Learning Outcomes of an Online Course in Health Informatics. Poster Presentation at the Association of Schools of Allied Health Professions Annual Meeting, Norfolk, VA.

Heudebert G.R., Berner E.S., Baker S, Funkhouser E., Fargason C.A., Weissman N.W., Kiefe C.I. (May, 2001) Improving Adherence to Guidelines: Impact of an Opinion Leader Quality Improvement Intervention. Poster Presentation at the Society of General Internal Medicine (SGIM) 24th Annual Meeting. San Diego, CA.

Berner, E.S., Miller, M.D., Maisiak, R.S., and Randolph, V. (November, 2000) The Impact of a Decision Support System on Physician Work-up Strategies. Presented as a poster at the AMIA Fall Symposium, Los Angeles, CA.

Berner. E.S. and Maisiak, R.S. (November, 1999) User Interaction and Decision Support System Performance.  Presented as a poster at the AMIA Fall Symposium, Washington, DC.

Berner, E.S., McGowan, J.J., Spooner, S.A., Raszka, W.D., Berkow, R., Verchot, M., Plutchak, T.S., and Jackson, J.R., and Hardin, J.M. (July, 1999) Evaluation of the Effects of Instruction in Online Information Retrieval and Application. Presented at Competing Constituencies of Medical Education: Meeting Accountability with Innovation, Chicago, IL.

Berner, E. S., Dev, P., Smith, N.B., and Harding, S.M. (November, 1998).   Strategy for Efficient Construction of Multimedia Case Simulations. Poster session presented at the AMIA Fall Symposium, Orlando, FL.

Berner, E. S. and Maisiak, R.S. (May, 1998). Factors Affecting Physician Evaluation of Diagnostic Decision Support Systems. Spring Congress American Medical Informatics Association, Philadelphia, PA. (Abstract in Proceedings, p. 74).

Berner, E.S. (May, 1998) Ethical Issues in the Evaluation of Clinical Decision Support Systems. Panel member, Ethical Issues at the Point of Use. American Medical Informatics Association Spring Congress, Philadelphia, PA.

Young, K. R., Jr., Berner, E. S., Philp, E. B. and Philp, J. R. (May, 1996). Evaluation of Asthma Knowledge Using an Objective Structured Clinical Examination (OSCE). Poster session presented at the American Thoracic Society Annual Meeting, New Orleans, LA.

Berner, E. S., Kiel, R. J., Nelson, S. J. and Kennedy, J. I. (June,1995). User Agreement on Vocabulary Selection for Decision Support Systems. Spring Congress American Medical Informatics Association, Cambridge, MA (Abstract in Proceedings, p. 59).

Phelan, S. T., Berner, E. S. and Jackson, J. R. (March, 1995). Impact of Clerkship Requirements on Use of Computer-Based Instructional Materials. Poster presentation at the Council on Resident Education in Obstetrics and Gynecology and the Association of Professors of Obstetrics and Gynecology Annual Meeting, Orlando, FL.

Allman, R. M., Berner, E. S., Folks, D. G. and Karuza, J. (August, 1994). Increased Physician Use of Influenza Vaccine through Small Group Consensus. Presented at meeting of Geriatric Education Centers, Washington, DC.

Box J. B., Berner, E. S., Fargason, C. A. and Jackson, J. R. (April, 1994). Total Quality Assurance in an Urban Resident's Clinic. Presented at the annual meeting of the Society of General Internal Medicine, Washington, DC.

Allman, R. M., Folks, D. G. and Berner, E. S. (January, 1993). Diffusion of Medical Technology Using Geriatric Education Centers: Influenza Vaccination, University of Alabama at Birmingham Geriatric Education Center Experience. Presented at Area Health Education Centers and University of Arkansas for Medical Sciences Conference on Dissemination Strategies for Changing Clinical Behavior, Little Rock, AR.

Juul, D. H., Berner, E. S., Jackson, J. R. and Heinsohn, M. E. (November, 1992). A Comparison of Resident Performance On Clinical Cases With Faculty Ratings of Case Difficulty. Presented at the Annual Meeting of the Association of American Medical Colleges, Research in Medical Education Conference, New Orleans, LA.

Phelan, S. T., Jackson, J. R. and Berner, E. S. (March, 1992). Comparison of problem-based education and traditional programs on student performance in the ob/gyn clerkship. Presented at the Council on Resident Education in Obstetrics and Gynecology and the Association of Professors of Obstetrics and Gynecology Annual Meeting, Orlando, FL.

Berner, E. S. (November, 1991). Issues in the Evaluation of Medical Diagnostic Decision Support Systems. Panel Participant at the Annual Meeting of the American Medical Informatics Association, Washington, D.C.

Berner, E. S. and Mulchahey, K. (April, 1991). Application of Decision Support Systems to Ob/Gyn Clerkship Education. Symposium presentation at American Educational Research Association Conference, Chicago, IL.

Berner, E. S. and Brooks, C. M. (May, 1990). Evaluation of Computer-Based Instructional Programs. Spring Congress, American Medical Informatics Association, Snowbird, UT (Abstract in Proceedings, p. 57).

Berner, E. S. (June, 1990). Computer-Assisted Student Evaluation. Panel Presentation at American Medical Informatics Association Annual Meeting, Snowbird, UT.

Mulchahey, K. and Berner, E. S. (March, 1990). Impact of Previous Experience on Students' Use of Computer-aided Iinstruction during OB/GYN Clerkship. Poster Session of Annual Meeting of Association of Professors of Obstetrics and Gynecology, New Orleans, LA.

Cotsonas, N. J., Jr., Sherman, J. A., Tellis-Nayak, M., Linsk, N. L., Di Tiberio, J. K., Lees, R. B. and Berner, E. (July, 1985). Inter-professional Course for Health Professional Students in Team Building and Team Care. Thirteenth International Congress of Gerontology, New York, NY.

Beckmann, C. R. B. and Berner, E. S. (November, 1983). Poster Session on Attending Tutor Observational Study, Association of American Medical Colleges. Washington, DC.

Ali, M. E. and Berner, E. S. (October, 1983). The Validity of External Evaluation of Medical Students in the Developing Countries. Conference on Communications, Mass Media and Development, Chicago, IL.

Barzansky, B., Alschuler, M., Beckmann, C. R. B., Berner, E., Angle, B. and Ozog, G. (April, 1983). Applying the Concept of Trustworthiness to the Evaluation of a Clinical Program. American Educational Research Association Convention, Montreal, Canada.

Beckmann, C. R. B. and Berner, E. S. (February, 1983). Poster Session on Attending Tutor Observational Study,  Association of Professors of Gynecology and Obstetrics.

Shanteau, J., Grier, M., Johnson, J. and Berner, E. (October, 1981). Improving Decision-making Skills of Nurses. ORSA/TIMS meeting, Houston, TX.

Berner, E. S. (April, 1981). What Interpersonal Skills Should We Teach Medical Students: Patient Compliance/satisfaction as a Determinant. American Educational Research Association Convention, Los Angeles, CA.

Berner, E. S. and Engel, J. D. (November, 1979). Toward a Structure of Medical Problem Solving Situations. Symposium at the Eighteenth Annual Conference on Research in Medical Education. Sponsored by the Association of American Medical Colleges, Washington, DC.

Berner, E. S. and Tremonti, L. P. (November, 1977). A Teaching Stratagem for Problem Solving. Symposium at the Sixteenth Annual Conference on Research in Medical Education. Sponsored by the Association of American Medical Colleges, Washington, DC.

Berner, E. S. (1974). New Approaches to Evaluation of Medical Students. National Council on Measurement in Education Convention, Chicago, IL.

**Chair/Discussant at Professional Meetings**

Moderator, Panel on Data-Driven Clinical Decision Support for Computerized Physician Order Entry: Development, Evaluation, and Implementation, AMIA Virtual Annual Symposium, November 2020.

Moderator, Panel on Building on Success: Standards-Based Decision Support in Commercial EHRs, AMIA Virtual Annual Symposium, November 2020.

Moderator, Human-Computer Interaction Panel, AMIA Annual Symposium, San Francisco, CA, November 2015.

### Moderator, Disease Detection, Diagnosis, and Monitoring State of the Art, AMIA Joint Summits on Translational Science, San Francisco, CA, March 2015.

### Moderator, The Learning Healthcare System, HIMSS2014, Orlando, FL, February, 2014.

### Moderator, Panel on Sustaining the Digital Research Enterprise. Presented at the AMIA Summit on Clinical Research Informatics, San Francisco, CA, March 2013.

### Moderator, Panel on Barriers and Solutions to Health Information Exchange, Institute for Healthcare Technology Transformation Summit, Atlanta Georgia, April, 2012.

### Session Chair, ACMI Senior Member Presentations: Meaningful Use and Workforce Development. AMIA Fall Symposium, Washington, DC, October, 2011.

### Moderator, Session on Clinical Decision Support and the Chain of Liabilities. Annual Conference of the Health Information Management and Systems Society, Atlanta, GA, March 2010.

### Co-Director, Diagnostic Error in Medicine Conference, Phoenix, AZ, May 2008.

### Chair, Emerging Technologies Session, Medinfo 2007, Brisbane, Australia, 2007.

### Organizer and Moderator, American College of Medical Informatics Special Session, Knowledge Management for Clinical Decision Support. AMIA Fall Symposium, Washington, DC, 2006.

### Organizer and Moderator, American College of Medical Informatics Special Session, Realizing the Financial Benefits of Electronic Health Records: What Do the Data Show? AMIA Fall Symposium, Washington, DC, 2005.

### Chair, Session on Integrating Decision Support and Order Entry, AMIA Fall Symposium, Washington, DC, 2005.

### Chair, Session on Education and Assessment, Medinfo 2004, San Francisco, CA, 2004.

### Chair, Session on Cognitive Evaluation for System Integration. AMIA Fall Symposium, Washington DC, 2003.

### Moderator, Session on Educational Technologies. Teach Globally, Learn Locally: Innovations in Health and Biomedical Informatics Education in the 21st Century. International Medical Informatics Association Working Group for Education Conference. Portland, OR., 2003.

Moderator on Panel Presentation on Education: Training of Clinicians and Students. Making the Healthcare System Safer: Second Annual Patient Safety Research Conference, 2003.

Discussant on "Distance Learning Technologies", American College of Medical Informatics "Meet the Expert" session at the AMIA Fall Symposium, 2002.

Discussant on "Evaluation of Clinical Decision Support Systems", American College of Medical Informatics "Meet the Expert" session at the AMIA Fall Symposium, 2000.

Chair, Paper Session on Clinical Reasoning, American Educational Research Association Convention, 1997.

Discussant, Paper Session on Clinical Reasoning, American Educational Research Association Convention, 1994.

Chair, Panel on What the User Needs to Know About Diagnostic Decision Support Systems. Symposium on Computer Applications in Medical Care, 1993.

Chair, Session on Cognition and Problem Solving. American Educational Research Association Convention, 1991.

Discussant, Meet the Experts Session on Assessing System Effectiveness. American Medical Informatics Association Annual Meeting, 1990.

Discussant, Meet the Experts Session on Evaluation of Expert Systems. Symposium on Computer Applications in Medical Care, 1989.

Chair, Session on Evaluating Medical Information Systems. Symposium on Computer Applications in Medical Care, 1989.

Chair and Organizer, Symposium on Issues in Research on Computer-Based Instruction. Research in Medical Education Conference, 1989. (See abstracts)

Chair, Paper Session on Investigations in Clinical Practice. American Educational Research Association Convention, 1989.

Chair, Session on Evaluation of Expert Systems. Symposium on Computer Applications in Medical Care, 1988.

Discussant, Meet the Experts Session on Evaluation of Expert Systems. Symposium on Computer Applications in Medical Care, 1988.

Reactor, Session on the Agenda for Professions Education Research. American Educational Research Association Convention, 1988.

Organizer/Chair/Critic, Symposium on User Support for Computer Programs in Business, Medicine and the Military, American Educational Research Association Convention, 1988.

Moderator, Symposium on Current Models of Clinical Reasoning: Implications for Medical Teaching. Research in Medical Education Conference, 1987.

Discussant, Paper Session on Relationship Between Expertise and Clinical Reasoning, American Educational Research Association Convention, 1986.

Chair, Paper Session on Acculturation of Foreign Medical Graduates, American Educational Research Association Convention, 1982.

Chair, Paper Session on Research on Clinical Education, American Educational Research Association Convention, 1982.

Host, Roundtable on Clinical Evaluation Research, American Educational Research Association Convention, 1982.

Critic, Paper Session on Assessing Clinical Skills, American Educational Research Association Convention, 1981.

# Professional Service

**Editorial Boards for Professional Journals**

HIM Section Co-editor, International Medical Informatics Association (IMIA) Yearbook of Medical Informatics, 2016-Present

Member, Editorial Board, Journal of Healthcare Information Management, 2001-2015

Member, Editorial Board, Journal of the American Medical Informatics Association, 1998-Present.

Guest Academic Editor, PLOS ONE, 2017

Member, Editorial Board, International Journal of Medical Informatics, 2006-2012.

Member, Editorial Advisory Committee, Medical Education Online, 1996 - 2005

Member, Editorial Board, Journal of Educ. Computing Research, 1991 - 1994

Member, Editorial Board, Academic Medicine, 1989 – 1994

**Manuscript Reviewer for Professional Journals**

Manuscript Reviewer, Journal of Cognitive Engineering and Decision Making, 2018

Manuscript Reviewer, JAMIA Open—2018- Present

Manuscript Reviewer, Journal of Consumer Research, 2018--Present

Manuscript Reviewer, Journal of Medical Internet Research, 2018-Present

Manuscript Reviewer, Journal of Evaluation in Clinical Practice, 2017--Present

Manuscript Reviewer, Applied Clinical Informatics, 2016--Present

Manuscript Reviewer, British Medical Journal, 2015-Present

Manuscript Reviewer, JAMA, 2008-Present

Manuscript Reviewer, JAMIA, 1995 - Present

Manuscript Reviewer, Journal of Biomedical Informatics, 2014--Present

Manuscript Reviewer, International Journal of Medical Informatics, 2013-- present

Manuscript Reviewer, Academic Medicine, 1988 – Present

Manuscript Reviewer, Medical Care, 2008-Present

Manuscript Reviewer, American Journal of Managed Care, 2014—Present

Manuscript Reviewer, Medical Education, 2002- 2013

Manuscript Reviewer, Teaching and Learning in Medicine, 1988 - 2009

Manuscript Reviewer, Health Informatics Journal, 2012

Manuscript Reviewer, Informatics for Health and Social Care, 2012

Manuscript Reviewer, Computational and Mathematical Methods in Medicine, 2012

Manuscript Reviewer, Medical Journal of Australia, 1997 - 2010

Manuscript Reviewer. Journal of Healthcare Engineering, 2010

Manuscript Reviewer. Journal of Healthcare Management, 2010

Manuscript Reviewer. Journal of General Internal Medicine, 2009

Manuscript Reviewer, QJM: An International Journal of Medicine, 2007

Manuscript Reviewer, International Journal of Medical Informatics, 1997 - 2005.

Manuscript Reviewer, American Journal of Managed Care, 2004

Manuscript Reviewer, Journal of Biomedical Informatics, 2004, 2009

Manuscript Reviewer, International Journal of Human-Computer Studies, 1995,

Manuscript Reviewer, Medical Decision Making, 1992

Manuscript Reviewer, Research in Nursing and Health, 1984

**Committee Member/Officer for Professional Organizations**

Member, AMIA Health Informatics Certification Commission and Co-Chair, Examination Subcommittee, 2019-present.

Member, AMIA Nominations Committee, 2018- 2020

Member, AMIA Health Informatics Accreditation Committee, 2016--Present

Member, AMIA 10 x 10 Program Review Committee—2015--Present

Member, AMIA Ethics Committee, 2009--Present

Member, Advisory Council, National E-health Collaborative’s NeHC University, 2012—2013.

Member, Association of American Medical Colleges, Group on Information Resources, Digital Research Enterprise Task Force, 2012-2013.

Planning Committee, 2013 Information Technology in Academic Medicine Conference, Group on Information Resources, Association of American Medical Colleges, 2012-2013.

Board Member, American Medical Informatics Association, 2007--2012

Track Chair for Education, AMIA 2011 Clinical Research Informatics Summit, 2010-2011;

Co-Chair, CTSA Informatics Key Function Committee Operations Committee, 2010-2012.

Member, Steering Committee, AMIA’s Academic Forum, 2006—2007.

Chair, Scientific Affairs Committee, American College of Medical Informatics, 2005-2007.

Secretary and Board Member, American Medical Informatics Association, 2004-2005.

Member, Program Committee, Second Annual Patient Safety Conference, Agency for Healthcare Research and Quality, 2002-2003.

Member Executive Committee, Education Working Group, American Medical Informatics Association, 1999—2001.

Member, Ethical, Legal and Social Issues Working Group, American Medical Informatics Association, 1997--Present

Vice Chair, Ethics Working Group, American Medical Informatics Association, 1996--1998

Member, Education Committee, American Medical Informatics Association, 1994-1997

Member, Program Committee, American Educational Research Association Division I, 1995

Member, Software Review Committee of the Clinical Computing Working Group, American Medical Informatics Association, 1992 - 1994

Member, Nominating Committee, Division I, American Educational Research Association, 1992, 1993

Member, History Committee, Division I, American Educational Research Association, 1988

Member, AAMC Task Force to Develop Recommendations on Use of National Board Examinations, 1987 - 1993

Chairman, By-Laws Committee, Division I, American Educational Research Association, 1983-1986

Secretary, Division I, American Educational Research Association, 1982-1984

Chairperson, Affirmative Action Committee of Division I, American Educational Research Association, 1979-1981

**Paper Reviewer for Professional Conferences**

Paper Reviewer for Medinfo 2012--Present

Paper Reviewer for the American Medical Informatics Association (Symposium on Computer Applications in Medical Care/Fall Symposium), 1990, 1993 – 1999, 2003--Present

Paper Reviewer, Research in Medical Education Conference, 1996 - Present.

Member, Program Committee, “Teach Globally, Learn Locally: Innovations in Health and Biomedical Informatics Education in the 21st Century” sponsored by Education Working Group of the International Medical Informatics Association, 2003.

Judge, Student Paper Competition, American Medical Informatics Association, 1999

Paper Reviewer for Division I, American Educational Research Association, 1980 -1982, 1988 - 1998.

Paper Reviewer, Generalists in Medical Education Conference, 1988.

**Service to University of  Alabama at Birmingham**

Member, Provost’s Transformational Online Course Award (TOCA) Review Committee--2021

Member Department Review Committee—2014-Present; Chair 2016-Present

Member, UAB Conflict of Interest Review Board, 2004—Present.

Member, Executive Steering Committee, UAB Clinical Data Warehouse Implementation, 2010--Present

Member, Health Services Administration Faculty Search Committee—2014-2016

Member, UAB Perioperative Health Services Research Group, 2012.

Member, UAB Council on Translational Research, 2011—2015

Member, Search Committee, Faculty, Department of Computer Science, 2012-2013.

Co-Chair, School of Medicine Strategic Planning Committee for Informatics, 2011.

Member Search Committee, Faculty, Occupational Therapy, School of Health Professions,2010.

Member, Faculty Affairs Committee, School of Health Professions, 2006—2009, 2013-- 2015

Member, Steering Committee, Information Technology and Quality of Life for Older Adults, UAB Center for Aging, 2006—2007.

Chair, Search Committee, Assistant Director of Health Informatics Program, 2006.

Member, Strategic Planning for Research Committee, School of Health Related Professions, and Department of Health Services Administration Committees, 2003.

Member, Outcomes Committee, Department of Health Services Administration, 2002.

Member, Professor Level Promotions and Tenure Subcommittee, Faculty Affairs Committee, School of Health Related Professions, 2002—2011.

Member, Promotions and Tenure Committee, Department of Health Services Administration, 2002—Present (Chair, 2003-2005).

Member, Search Committee, Faculty position for Health Informatics Program, 2001- 2004

Chair, Search Committee for Division Director, Clinical Laboratory Sciences, School of Health Related Professions—2001.

Chair, Continuing Education Committee, UAB School of Health Related Professions, 2000—2003.

Member, Search Committee for the Chair for the Department of Health Services Administration, UAB School of Health Related Professions, 2000.

Member, UAB School of Health Related Professions, Academic Affairs Committee,1999 – 2002.

Member, UAB Health Systems Information Technology Advisory Group (ITAG), 1997—2002.

Member, ITAG focus group on the development of a computer-based patient record, 1998

Judge, Graduate Student Research Day, 1998

Member, IAIMS Medical Informatics Research and Education Committee, 1997--Present

Member, Search Committee, Director of M.S. in Health Informatics, Health Services Administration, School of Health Related Professions, 1998

Chair, Health Services Administration Department Ad Hoc Academic Misconduct Review Committee, 1997

**External Funding**

**Currently Funded Research and Development Activities**

Center for Clinical and Translational Science

Robert Kimberly, Principal Investigator

 Funding Source—National Center for Clinical and Translational Science

 Period of Support— 05/06/2019-04/30/2024

**Role—Investigator, Biomedical Informatics**

 Annual Direct Costs--$5,208,801

Integrating Genomic Risk Assessment for Chronic Disease Management in a Diverse Population

Nita Limdi, Principal Investigator

Funding Source—National Human Genome Research Institute

Period of Support--06/01/2020-3/31/2025

 **Role--Co-Investigator**

 Total Costs--$6,866,040

**Previous Participation in Funded Activities**

Rural Health Information Technology Workforce Program

 Michael Bice, Principal Investigator

 Funding Source: Health Resources and Services Administration

Period of Support—09/01/2013—08/31/2017

**Role: UAB Principal Investigator (UAB Subcontract)**

Total Costs (Subcontract): $299,111

Health IT Workforce Development for Healthcare Transformation

**Eta S. Berner, Ed.D., Principal Investigator**

Funding Source--Office of the National Coordinator of Health Information Technology

 Period of Support—06/29/2015—06/28/2017

 Total Costs--$966,436

Advanced Nursing Education Grants

 Teena McGuinness, Principal Investigator

 Funding Source: Health Resources and Services Administration

 Period of Support-- 04/01/2013--06/30/2015

 **Role: Educational Consultant/Curriculum Development**

Annual Direct Costs--$344,228

 Using Health IT in Practice Redesign: Impact of Health IT on Workflow

 James Willig, Principal Investigator (UAB Subcontract)

 Funding Source--Abt Associates/Agency for Healthcare Research and Quality

 Period of Support--8/15/2012-8/14/2015

 **Role: Co-Investigator**

Total Cost: (UAB portion):$68,722

UAB Deep South Arthritis and Musculoskeletal CERTs

 Kenneth Saag, Principal Investigator

 Funding Source—Agency for Healthcare Research and Quality

 Period of Support—09/01/2011—08/31/16

 **Role: Health Informatics Lead**

 Total Direct Costs—$4,123,322

Using ICTs to Enhance the Quality of Life Among Older Adults: An Intervention Study
 Shelia R. Cotten, PhD, Principal Investigator
 Funding Source—National Institute for Aging
 Period of Support—01/15/09 – 07/31/13
 **Role—Investigator** Annual Direct Costs-$344,262

Distributed Health Outcome Monitoring and Evaluation Using i2b2

 **Eta S. Berner, Ed.D., Principal Investigator**

 Funding Source—National Center for Research Resources

 Period of support--09/12/2011—04/30/2013

 Total Costs--$25,000

UABHealth Information Technology Curriculum Development Project

 **Eta S. Berner, Ed.D., Principal Investigator**

 Funding Source—Office of the National Coordinator of Health Information Technology

 Period of Support—04/02/2010—03/30/2013

 Total Direct Costs--$1,400,000

Curriculum Development for Health Administration Students

 **Eta S. Berner, Ed.D., Principal Investigator/Project Director**

Funding Source: HIMSS/AUPHA

 Period of Support—09/16/2011—04/30/2012

 Total Direct Costs--$10,000

CCTS Administrative Supplement in Response to Topic #5, Collaborative Projects that Support Key Function Projects (Title: Federated Aggregate Cohort Estimator (FACE))

Lisa Guay Woodford, Principal Investigator

 Funding Source—National Center for Research Resources

 Period of support--07/27/2011—04/30/2012

 **Role—Project Director (supplement PI)**

Annual Direct Costs--$139,791

 Closing the Feedback Loop to Improve Diagnostic Quality

 **Eta S. Berner, Ed.D. Principal Investigator** Funding Source--Agency for Health Care Research Quality

 Period of Support--09/01/07-08/31/2011

 Annual Direct Costs—$389,185

 Evaluation of the Effects of Shared Health’s Clinical Health Record

 **Eta S. Berner, Ed.D., Principal Investigator**

 Funding Source: Shared Health, Inc.

 Period of Support--06/30/2008—02/28/2011

 Total Direct Costs--$131,567

E-Coaching: IVR-Enhanced Care Transition Support for Complex Patients

 Christine Ritchie, MD, Principal Investigator

Funding Source-- Agency for Healthcare Research and Quality
Period of Support—10/01/2008 – 09/30/2011
**Role—Co-Investigator**Total Direct Costs—$1,999,999

Reducing Harm to Patients from Diagnostic Errors (Small Conference Grant)

 **Eta S. Berner, Ed.D. Principal Investigator**

 Funding Source--Agency for Health Care Research Quality

 Period of Support--09/20/07 – 09/19/09

 Total Costs--$50,000

Evaluation of Electronic Health Records Adoption and Usage in Outpatient Services in a HIV/AIDS Clinic

Shannon Houser, PhD, Principal Investigator

Funding Source—AHIMA/FORE

Period of Support--09/01/08 - 5/31/10

**Role—Investigator**

Total Direct Costs--$37,698

Webcasting: The Impact of Presence
 **Eta S. Berner, Ed.D. Principal Investigator** Funding Agency - National Library of Medicine
 Period of Support - 09/21/07-09/20/09
 Annual Direct Costs – $17,075

Clinical Decision Support Simulations for Medication Administration Safety Jacqueline Moss, Ph. D. Principal Investigator
Funding Source-- Agency for Healthcare Research and Quality
Period of Support--09/30/2006 – 09/29/2009
**Role—Co-Investigator**Annual Direct Costs—$167,180

Physician Complacency and Diagnostic Error
**Eta S. Berner, Ed.D., Principal Investigator**Funding Source—Paul Mongerson Foundation within the Raymond James Charitable Endowment Fund
Period of Support—01/26/06—5/31/08
TotalDirect costs—$99,070

 Multiple Modes of Teleconferencing: The Impact of Presence
 **Eta S. Berner, Ed.D. Principal Investigator** Funding Agency - National Library of Medicine
 Period of Support - 09/21/05-09/21/07
 Annual Direct Costs – $17,126

Information Needs in Cardiovascular Intensive Care
Funding Agency—National Library of Medicine
Period of Support—04/01/04—12//31/06
**Role—Co-Investigator**Annual Direct Costs—$50,000

Improving Primary Care Patient Safety with Handheld DSS
**Eta S. Berner, Ed.D., Principal Investigator**
Funding Agency - Agency for Healthcare Research and Quality
Period of Support – 09/30/01 – 09/29/05
Annual Direct Costs - $178,619

Physician Use of Diagnostic Decision Support System Data
**Eta S. Berner, Ed.D., Principal Investigator**
Funding Agency - National Library of Medicine
Period of Support - 09/30/97 – 02/28/03
Annual Direct Costs - $131,845

Evaluation of Medical Education Database Search Strategies
**Eta S. Berner, Ed.D., Principal Investigator**
Funding Agency – National Library of Medicine
Period of Support – 8/01/99 – 07/31/05
Annual Direct Costs - $16,289

Distance Technology for Training in Underserved Areas
Donna J. Slovensky, Principal Investigator
Funding Agency - HRSA—Bureau of Health Professions
Period of Support - 11/29/02 – 06/30/05
**Role: Investigator**
Annual Direct Costs - $56,468

Health Informatics and Ethics for Allied Health Professionals:
An Interdisciplinary Distance Learning Project
**Eta S. Berner, Ed.D., Principal Investigator**
Funding Agency - HRSA—Bureau of Health Professions
Period of Support - 08/01/99 – 12/31/02
Annual Direct Costs - $64,587

National Heart Attack Program N01-LM-0-3524
Helmuth Orthner, Ph.D., Principal Investigator
Funding Agency - National Library of Medicine
Period of Support - 09/01/00 - 08/31/02
**Role--Investigator**
Annual Direct Costs - $383,777

Sleep Academic Award HL03633-01
Susan Harding, M.D., Principal Investigator
Funding Agency - NIH--National Heart, Lung and Blood Institute
Period of Support - 09/30/96 - 09/29/01
**Role--Collaborator**
Annual Direct Costs - $65,157

Impact of Guidelines on Quality of Care: Unstable Angina R01-HS08843
Catarina Kiefe, MD, Principal Investigator
Funding Agency-- AHCPR
Period of Support -- 09/30/97 - 09/29/00
**Role – Coordinator of Educational Intervention**
Annual Direct Costs -- $472,648

Development of a Model for Assessing Information Retrieval & Application Skills
**Eta S. Berner, Ed.D., Principal Investigator**
Funding Agency -- National Board of Medical Examiners
Period of Support --06/01/97 - 07/31/99
Annual Direct Costs - $24,644

Evaluation of Distance Interactive Collaborative Learning
**Eta S. Berner, Principal Investigator**
Funding Source: SHRP Faculty Research Initiatives Mini-Grant Program
Period of Support: 12/1/98—5/31/00
Annual Direct Costs - $6,849

Design and Implementation of an Innovative Educational Project for Physicians
Linda Casebeer, Principal Investigator
Funding Agency-- Merck Pharmaceuticals
Period of Support-- 01/01/97 - 12/31/97
**Role-- Coordinator, Standardized Patient Training**
Annual Direct Costs -$82,606

PDQ/PIF Demonstration Project
Edward E. Partridge, M.D., Principal Investigator
Funding Agency - NIH--National Cancer Institute
Period of Support - 09/15/94 - 09/30/96
**Role - Co-Principal Investigator/Evaluator**
Direct Costs - $34,990

Asthma Academic Award Program HL-93-10L
K. Randall Young, Jr., M.D., Principal Investigator
Funding Agency - NIH--National Heart, Lung and Blood Institute
Period of Support - 10/01/94 - 09/30/97
**Role - Education Specialist**
Annual Direct Costs - $89,640

Tuberculosis Academic Award Program HL-93-09L
Nancy E. Dunlap, M.D., Ph.D., Principal Investigator
Funding Agency - NIH--National Heart, Lung and Blood Institute
Period of Support - 09/30/94 - 09/30/97
**Role - Education Specialist**
Annual Direct Costs - $54,673

General Pediatric Fellowship Training Grant 1 D28 PE50036-01
Carolyn S. Ashworth, M.D., Program Director
Funding Agency - Health Resources and Services Administration
Period of Support - 07/01/94 - 06/30/97
**Role - Instructor/Curriculum Development/Evaluation Specialist**
Annual Direct Costs - $122,447

Pediatric Residency Training Grant 1 D28 - PE10077-01
Kathleen G. Nelson, M.D., Program Director
Funding Agency - Health Resources and Services Administration
Period of Support - 07/01/92 - 06/30/95
**Role - Evaluation Specialist**
Annual Direct Costs - $234,408

Breast Cancer Summit
Merle M. Salter, M.D., Principal Investigator
Funding Agency - NCI
Period of Support - 09/01/93 - 08/31/94
**Role - Evaluator**
Annual Direct Costs - $20,000

A Method to Test Diagnostic Decision Support Software 1 R01 LM05125
**Eta S. Berner, Ed.D., Principal Investigator**
Funding Agency - National Library of Medicine
Period of Support - 04/01/90 - 03/31/94
Annual Direct Costs - $90,710

Preventive Pulmonary Academic Award 1 K07 HL02327-01
William C. Bailey, M.D., Principal Investigator
Funding Agency - NHLBI
Period of Support - 06/01/89 - 05/31/94
**Role - Research and Evaluation Coordinator**
Annual Direct Costs - $80,384

Teaching and Applying Medical Informatics Skills in an OB/GYN Clerkship
Sharon Phelan, Project Director
Funding Agency - Association of Professors of Gynecology and Obstetrics
Period of Support - 1992-1993
**Role - Co-Director**
Annual Direct Costs - $10,000

Problem-Based Learning in Clinical Medical Education
Paul Tietze, M.D. Program Director
Funding Agency - Bureau of Health Professions
Period of Support - 07/01/91 - 06/30/92
**Role - Educational/Evaluation Consultant**
Annual Direct Costs - $91,300

Problem-Based Learning in Community Medical Education, #93.149
Wilmer J. Coggins, M.D., Program Director
Funding Agency - Bureau of Health Professions
Period of Support - 07/01/92 - 06/30/93
**Role - Educational/Evaluation Consultant**
Annual Direct Costs - $91,300

Preventive Cardiology Academic Award 1 KO7 HL2603
Herman A. Taylor, M.D., Principal Investigator
Funding Agency - National Heart, Lung and Blood Institute
Period of Support - 07/01/91 - 06/30/92
**Role - Curriculum/Evaluator**
Annual Direct Costs - $117,258

Pediatric Residency Training Grant ID28 - PE142 93-010
Kathleen G. Nelson, M.D., Program Director
Funding Agency - Health Resources and Services Administration
Period of Support - 7/01/87 - 6/30/90
**Role - Assistant Curriculum Coordinator**
Annual Direct Costs - $145,000

Diffusion of Medical Technology Using Geriatric Education Centers
David G. Folks, M.D., Principal Investigator
Funding Agency - DHHS/HRSA
Period of Support - 10/01/90 - 09/30/92
**Role - Evaluator**
Annual Direct Costs - $37,965

Child Psychiatry Certification Project
John McDermott, M.D. and Christine McGuire, M.A., Principal Investigators
Funding Agencies - Falk, Ittleson and Grant Foundations
Period of Support - 1973-1976
**Role - Project Director**

Improving Decision Making Skills of Nurses
Margaret Grier, R.N., Ph.D., Principal Investigator
Funding Agency - Public Health Service, Division of Nursing
**Role - Assisted in development of evaluation materials**

Patient Management Problems for Nurse Practitioners 7R01 N00788
William Holzemer, Ph.D., Principal Investigator
Funding Agency - HHS, Division of Nursing
**Role – Consultant**

**Consultations**

**NIH and Other Review Committees**

Grant Reviews

Member, NIH-NIMH Special Emphasis Panel, Early Psychosis Intervention Network (EPINET), May, 2020.

External Peer Reviewer, Physician Services Incorporated (PSI) Foundation, Research grant review, March, 2019, and January, 2020.

Member, NIH-NIMH Special Emphasis Panel, P50 Advanced Laboratories for Accelerating the Reach and Impact of Treatments for Youth and Adults with Mental Illness (ALACRITY) Research Centers, July, 2019.

External Reviewer, Israel Science Foundation Research Grant, March, 2019.

Member, NIH-NIMH Special Emphasis Panel, Early Psychosis Intervention Network (EPINET), February, 2019.

Reviewer, Einstein Junior Fellowship, Einstein Foundation, Berlin, Germany, September, 2018.

Grant Reviewer, Cancer Research UK, July, 2017.

Panel Member, Grant reviews. National Science Foundation, March, 2017.

Member, Healthcare Information Technology Research (HITR) Study Section, October 2012—May 2016. (Formerly, Member, Health Care Technology and Decision Sciences (HCTDS) Study Section, Agency for Healthcare Research and Quality, 2002-2006.) Ad Hoc Reviewer, HITR June 2009, June, 2012, February 2017).

Reviewer, NIH/NCI Patient-Centered Outcomes Research Resource, 2013.

External Reviewer, American Association for the Advancement of Science (AAAS) Research Competitiveness Program, 2013.

External Proposal Reviewer. Maryland Technology Development Corporation, May, 2004.

Ad Hoc Reviewer, Biomedical Library Review Committee, National Library of Medicine, 2002, 2004.

External Proposal Reviewer, Jewish Hospital of Louisville Grant Program, 2002.

Member, Special Emphasis Panel, Developmental Centers for Evaluation and Research on Patient Safety, Agency for Healthcare Research and Quality, 2001.

Member, Special Review Panel, Nutrition Academic Award, National Heart, Lung and Blood Institute, 1999.

External Proposal Reviewer, People and the Centre of Communication and Information Technologies, Economic and Social Research Council, United Kingdom, 2000.

External Proposal Reviewer, National Board of Medical Examiners, Medical Education Research Fund, 1999, 2000, 2001.

Member, Special Review Panel, Sleep Medicine Academic Award, National Heart, Lung and Blood Institute, 1997, 1998.

Member, Special Review Panel, Tuberculosis Academic Award, National Heart, Lung and Blood Institute, 1993, 1994,1997.

Member, Special Review Panel, Hematology Study Section, National Heart, Lung and Blood Institute, 1996.

Member, Special Review Group, Tuberculosis Prevention and Adherence Interventions, National Institute of Nursing Research, 1993.

Field Reader, Field Initiated Studies Competition, U.S. Department of Education, Office of Research, 1989 and 1990.

Site Visitor, Dartmouth Medical School for the Biomedical Library Review Committee, National Library of Medicine, 1984.

Outside reviewer, National Council of State Boards of Nursing, 1984.

Member, Health Professional Advisory Committee, Chicago Chapter, March of Dimes Birth Defects Foundation, 1977-1984.

Educational Program Reviews

External Reviewer, University of Texas, Houston, School of Informatics, June 25-27, 2019

Quality Matters Certified Peer Reviewer, October 2017--Present

Peer Reviewer, Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). March 1, 2017- Present.

External Reviewer, Northeastern University, Boston, MA, Masters in Health Informatics Program, 2014.

Member, External Advisory Committee, Boston University CTSA Supplement Project on Informatics Curriculum. 2012.

Member, External Advisory Committee, University of Kansas, Division of Biomedical Informatics, 2012.

Member, Advisory Committee, HIT Pro Competency Examination (national health information technology competency exam), 2010--2012.

External Reviewer, University of Wisconsin-Milwaukee Health Informatics Program, 2010.

Chair, School of Informatics at Indiana University-Purdue University Indianapolis (IUPUI) External Program Review Panel, 2008.

Research Program Reviews/Advisory Boards

Member, Data Safety and Monitoring Board, NIDCR, for study “De-Implementing Opioid Use and Implementing Optimal Pain Management Following Dental Extractions (D. Brad Rindal, DDS and Sharon Mitchell, PhD—PIs)—March 2018--Present

Member, External Scientific Panel, NHGRI eMERGE Network, 2011--2020

Member, Board of Scientific Counselors, Lister Hill Center, National Library of Medicine, 2012—2017; Chair, July 2015—July 2017.

Member, External Advisory Board, University of Massachusetts Medical School, Center for Clinical and Translational Science, 2013-2016.

Member, Clinical Decision Support Technical Expert Panel, Agency for Healthcare Research and Quality, 2008—2012. Reviewer of Final Report—2014.

Member, Technical Expert Panel for Clinical Decision Support, Duke Evidence-Based Practice Center, 2009—2010.

Member, External Advisory Board, University of Illinois at Chicago Center for Clinical and Translational Science, 2009—2010.

Member, External Advisory Board, for Project, “The Clinical Informationist: Does the Model Work?” Vanderbilt University, Nashville, TN, 2004-2006.

**Other Consultations**

Faculty Reviewer, Team Assignment #3, Harvard Medical School Program on Safety, Quality, Informatics Leadership (SQIL) program, 2017-Present.

External Reader for PhD dissertation of Mohamed Abouzahra, McMaster University, July-Sept, 2017.

Invited Participant, ONC Clinical Decision Support Workshop: Taking CDS to National Scale, December, 2010, Arlington, VA.

Kettering Hospital, Kettering, Ohio. Consultant on implementation of computer-based decision support systems, 1992.

American Physical Therapy Association. Consultant to Task Force on Clinical Decision Making, 1990-1991.

Chicago City Wide Colleges. Workshop on Clinical Education and Evaluation, 1981.

University of Northern Colorado School of Nursing. Consultant on evaluation of nursing problem solving, 1980.

Illinois State Psychiatric Institute. Consultant to Interdisciplinary Education Committee, 1977- 1982.

American Board of Oral Surgery. Consultant regarding development of certification examinations, 1976-1978.

World Health Organization. Consultant to Medical Education Unit, University of Sri Lanka, Sri Lanka, 1974.

**Community Service**

University of Rochester Real Reader Program (mentoring undergraduate students on professional development), 2017-Present.

# Teaching, Curriculum Development, Educational Evaluation

**Course/Clerkship Teaching**

School of Health Related Professions, University of Alabama at Birmingham

Master of Science in Health Informatics

* HI 673/674(formerly HI 654/664)—Capstone Course—Spring 2020--Present
* HI 614QL (formerly HI 602QL)—Clinical and Administrative Systems, Spring 2015—Present (Awarded certification by Quality Matters (2018).
* HI 611 (formerly HI 640QL) --Survey of Information Systems in Health Care, 2006—Present. (Awarded certification by Quality Matters 2015, 2021).
* HI 640 Survey of Information Systems in Health Care—Fall 1998—2005 (Same course taught as HA 640, 2001, 2002)
* HI 694 (changed to HI 644) (Ethical and Legal Issues in Health Informatics—online course)—Co-developer/team teacher—2002—2006
* HI 655 (Seminar In Health Informatics)--1998, 1999
* HI 692 (History of Medical Informatics) --1998, 1999, 2000, 2001
* Co-taught HA 640(Health Informatics) in Executive Master of Science in Health Administration Program – 1999, 2001
* Co-taught HI 602 (Clinical Information Systems)--1998
* Co-taught HI 691 (Information Systems in Support of Health Care Delivery)--1998
* Co-taught HI 615 (Decision Support Systems)—1997
* Internship (HI 690 )Coordinator-- 1997—2008

Certificate in Health Informatics (2017-Present)

HI 640Q (online course) Survey of Information Systems in Health Care

HI 602Q (online course) —Clinical and Administrative Systems

Guest Lecturer on clinical decision support systems, 1993, 1995, 1997 (and in HI 615—1998—2007)

Guest Lecturer in Doctoral Program in Administration-Health Services courses

Speaker on Role of Informatics in Outcomes Research, 2003, 2004

Speaker on Grant Writing Strategies, 2001, 2003, 2005

Speaker on current research—2014, 2019

Guest lecturer in Informatics Institute Course in Biomedical Informatics--2017

UAB Honors Program

HON 342-ST Personalized Genomic Medicine—Guest lecturer, 2014

UAB Center for Clinical and Translational Sciences

Informatics for Translational Researchers, Course Director, 2011-2018 (taught as HI 695)

Guest lecturer (with James Willig) on Informatics in course for postdoctoral fellows on Translational Medicine.—2013—2015

School of Nursing, University of Alabama at Birmingham

 Guest lecturer on clinical decision support systems, NUR 443/643, 2004, 2005 (online presentation in 2006)

 School of Medicine, University of Alabama at Birmingham

 INFO 501—Guest Lecture, 2017

Invited lecture on Clinical Informatics in GBS 722. 2011, 2012.

Problem-based computer simulation instruction for third year students on Ob/Gyn clerkship, 1992-1993

Medical School, University of Massachusetts

Communications Skills - Small group instructor for first year medical students, 1985

Graduate School of Biomedical Sciences, University of Massachusetts

MS 790 How to Teach - Course in instructional methods for graduate students in Basic Sciences, 1985

University of Illinois College of Medicine (1972-1984)

Masters Program in Health Professions Education,
ED 391 Test Construction - Principles in development and use of multiple choice, essay, written simulation examinations

ED 395 Clinical Education - Problem-based seminar on issues in planning, teaching, and evaluation in the clinical setting

**Curriculum/Evaluation Activities**

University of Alabama School of Medicine

Chair, Medical Education Committee Medical Informatics Subcommittee, 1995-1997

Member Medical Education Committee, 1995-1997

Member, Medical Education Committee Clinical Sciences Subcommittee, 1994-1997

Member, Steering Committee for Introduction to Clinical Medicine Course, 1993-1997

Member, OSCE Committee, 1995--1997

Member, Task Force on Third and Fourth Year Curriculum, 1994-1995

Member, Innovations Subcommittee, 1992-1994

Member, Problem Based Learning Subcommittee, 1990-1992

University of Massachusetts Medical School

Responsibility for assisting medical school departments in the evaluation and improvement of their courses. This involved the design of, and analysis of data from, a variety of course evaluation and other rating forms and consultation with course faculty, 1984-1986.

University of Illinois College of Medicine

Provided educational assistance to clinical medical faculty on the development of medical student examinations and was responsible for examination administration, 1972-1984.

**Workshops for Medical School Faculty and Residents**

Principles of test construction and analysis
Development of checklists and rating scales
Improvement of lecture skills
Evaluating clinical performance
Providing effective feedback to students

**Student Dissertation Committees/Other Student Mentoring**

Shandra M Pittet, PhD in Health Services Administration, 2018- 2021

Shikha Modi, PhD in Health Services Administration (Health Informatics Track) 2019--2021

Aowen Zhu, PhD in Sociology, Commttee Member, 2018- 2019

Bryan Wilbanks—DNP, and later PhD in Nursing Informatics—Committee Member (completed DNP, PhD) 2012-2017.

Carrie Lee Gardner—PhD in Nursing Informatics—Committee Member--2015—2017.

Willi Tarver—PhD in Public Health—Committee member – Completed PhD, August 2015. Title: Impact and Adoption Trends of HIT in Cancer Care

Andrea Papa—Chair, MSHI Capstone Project—2015. Title: Consulting Workshop Framework for Optimizing Physician-Patient- EHR interaction

Jenny Lee—Medical student research rotation (Co-mentor) (2013-2014). Project Title: Clinical Characteristics of Patients with Geocoding Failure

TyLynn Griffin--Minority student summer program undergraduate student (2014). Project Title: Examining Adoption Rate of Electronic Health Records vs. Patient Care Quality

Harold Neumeier—PhD in Administration-Health Services—Dissertation Chair—Completed PhD, August 2013. Title: The Relation of Hospital Choices in IT Infrastructure Spending and Deployment with HIT/EHR Strategies and Operational Efficiency

Heather J. Sobko—PhD in Nursing Informati76y7u6y6u66666666666ycs—Dissertation Committee Member—Completed PhD, August 2011. Title: Associations Among Measures of Engagement with KPOrg and Clinical Outcomes\

**MSHI Capstone Project Advising**

2022

Motasem Ashour

Joyner Bousquet

Talacy Hines

Enyo Kpomblekou

Karen Konkel

Larissa Pierce

Clarke Tulloch

Warren Womack

Miranda Zaragoza

2021

 Subha Balagee

Makena Boyd

 Nora Bryan

Walter Fanning

Kyle Martin

Heather Swindle

Tina Wei

2020

 Meghan Frost

 Ayana Underwood

2019

 Robin Lesure

Fatrina Pierce

Alicia Reese

 Taylor Stanley

 Vicki Vinson

2018

 Adam Krukas

Nandika Nagadowithana

Sarah Robertson

 2017

 Afton Cowen

 Jeanne (Ginny) Meadows

 Evita Payton

**Continuing Education and Other External Workshops**

Course Director, AMIA 10 x 10 at UAB (http://www.amia.org/education/academic-and-training-programs/10x10-university-alabama-birmingham), 2006-Present.

Online Continuing Education in Ethics and Health Informatics, School of Health Related Professions, 2002-2003.

Workshop Leader, Teaching Scholars Workshop on Medical Informatics Education. University of Arkansas for Medical Sciences, Little Rock, AR, 2000.

Continuing Education Program on "Evaluation in Health Professions Education: A Practicum in the Design and Interpretation of Examinations," Worcester, MA, 1986.

Workshop leader, Massachusetts Medical Society Conference on "Challenges for Directors of Medical Education," Worcester, MA, 1985.

Workshop on Resident Evaluation, Department of Emergency Medicine, Christ Hospital, Oak Lawn, IL, 1984.

Invited Coordinator, Pre- and Post-Sessions, Conference on Research in Nursing Education; and Leader, Workshop on Written Simulations, San Francisco, CA, 1983.

Director, Workshop on Measuring Problem-Solving Skills Through Simulation, Northern Illinois University, Dekalb, IL, 1982.

Staff, two N.C.M.E. sponsored workshops on patient management problems, New Orleans, LA, 1973.

Staff, AAMC sponsored workshop on patient management problems, Washington, DC, 1973.