

CURRICULUM VITAE
David J. Vanness, PhD
State College, Pennsylvania
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Education

PhD, University of Wisconsin-Madison, Madison, Wisconsin, USA, 2000. Economics.
Dissertation Title: Choice, Information and Quality of Employer-Sponsored Health Insurance

MS, University of Wisconsin-Madison, Madison, Wisconsin, USA, 1996. Economics.

AB, Summa cum laude, Georgetown University, Washington, DC, 1993. Economics (Honors) and Government (double major)

Fellowships, Traineeships and Assistantships

Trainee, Economics of Mental Health, Funded by the National Institute of Mental Health (T32MH018029) at the University of Wisconsin-Madison, Madison, Wisconsin, 1996 - 1999

Research Assistant, Institute for Research on Poverty and La Follette School of Public Affairs, University of Wisconsin-Madison, Madison, Wisconsin, 1995 - 1996

Fellowship, Wisconsin Alumni Research Foundation, University of Wisconsin-Madison, Madison, Wisconsin, 1994 - 1995

Administrative Assignments

Graduate Funding Model Task Force, Pennsylvania State University, University Park, Pennsylvania, Co-Chair. (2024 – Present)

Professor in Charge, MS/PhD Program in Health Policy and Administration, Department of Health Policy and Administration, College of Health and Human Development, Pennsylvania State University, University Park, Pennsylvania. (July 2022 - Present)

Other, College. (July 2020 - June 30, 2021).
Document resources of former Methodology Center and assess feasibility / develop mission and implementation strategy for new college-level methods service core.

Professional Positions

Academic

Professor (with tenure), Department of Health Policy and Administration, College of Health and Human Development, Pennsylvania State University, University Park, Pennsylvania. (2018 - Present).

Associate Professor (with tenure), Department of Population Health Sciences, University of Wisconsin-Madison, Madison, Wisconsin. (2012 - 2018).

Assistant Professor (tenure track), Department of Population Health Sciences, University of Wisconsin-Madison, Madison, Wisconsin. (2003 - 2008; 2009 - 2012).

Assistant Professor (non-tenure track), Health Services Research, Mayo Clinic College of Medicine, Rochester, Minnesota (2001 – 2003)

Professional

Research Scientist, United Biosource Corporation. (October 1, 2008 - September 30, 2009).

Senior Associate Consultant, Division of Health Care Policy and Research, Mayo Clinic, Rochester, Minnesota. (2001 - 2003).

Associate Consultant, Section of Health Services Evaluation, Mayo Clinic, Rochester, Minnesota. (1999 - 2001).

Professional Memberships

American Economic Association. (1999 - Present).

International Health Economics Association. (1999 - Present).

International Society for Pharmacoeconomics and Outcomes Research. (2000 - Present).

Society for Medical Decision Making. (2001 - Present).

American Society of Health Economists. (2004 - Present).

American Association of University Professors. (2015 – Present)

International Association for Population Health Sciences. (2016 - 2019).

Honors and Awards

Faculty of the Year, University of Wisconsin Population Health Sciences Student Organization, 2017

Lawrence Gold Professional Issues Award, American Federation of Teachers, Awarded to AFT-Wisconsin Higher Education Council for “work to defend tenure, academic freedom and shared governance within the UW System,” 2016

Peer-Nominated Service Award, United BioSource Corporation, 2009

Best Pre- and Post-Doctoral Research Poster (With Seplaki C. L.), Association for Health Services Research, 1999

Phi Beta Kappa, 1993

National Merit Scholar, 1989-1993

TEACHING

Teaching Experience

Penn State, 2018 - Present

HPA 546, Assessing the Value of Health Interventions, 2 semesters

HPA 597, Special Topics (Valuing Healthcare: Policy and Research), 3 semesters

HPA 562, Economics Applications in Health Services Research, 6 semesters

HPA 494, Honors Thesis, 2 semesters

HPA 518/597, Special Topics (Basic Analytic Methods for Health Services Research), 5 lectures

HPA 497, Research Careers in Health Policy and Administration, 1 lecture

RISE 500L, Research Integrity and Scholarly Ethics, 1 lecture

UW-Madison, 2003 - 2018

PHS/ISyE 875, Assessment of Medical Technologies, 14 semesters

PHS 795, Principles of Population Health Sciences, 5 semesters

PHS 650-029, Principles of Population Health Sciences, 1 semester

PHS 820, Graduate Seminar, 3 semesters

PA 881, Cost Benefit Analysis, 1 semester

PHS 699, Independent Reading, 8 semesters

ECON/PHS 848, Health Economics, 10 lectures

PHS 805, Epidemiology 4 (Advanced Methods), 8 lectures

PHS 785, Health Systems, Management and Policy, 8 lectures

PHS 717, Introduction to Epidemiology, 3 guest lectures; 5 labs

PHS 876, Measuring Health Outcomes, 4 lectures

PHS 650, Introduction to the American Health Care System, 3 lectures

PHS 375, Introduction to Population Health Sciences, 3 lectures

PHS 796, Introduction to Health Services Research, 1 lecture

PHS 650, Population Health Sciences: Concepts and Methods, 1 lecture

EPS 7803, Seminar on Scholar Activism, 1 guest lecture

SOC 370, Population Problems, 1 guest lecture

Mayo Clinic, 2000 - 2002

HSR 5000, Introduction to Health Services Research, 1 course (8 weeks)

Introduction to Economic Evaluation of Health Care (Mayo Clinic – Scottsdale), 1 course (5 weeks)

Short Courses

Vanness, D. J. (October 2019). "Principles of Machine Learning in Health Economics and Outcomes Research," Professional Development Workshop, Evidera, Bethesda, Maryland, 2 days, Invited.

Vanness, D. J., Hollenbeak, C. S., (16 courses, 2004 – 2019) "Bayesian Analysis: Applications" International Society for Pharmacoeconomics and Outcomes Research, Annual International Meeting, Various Locations, 1 day, Invited.

Vanness D. J. (October 2016) "Bayesian Analysis Workshop" Evidera, Waltham, Massachusetts, 2 days, Invited.

Vanness D. J. (October 2013) "Introduction to Multilevel Modeling" Janssen Scientific Affairs, Titusville, New Jersey, 1 day, Invited.

Paramore C., Ishak K. J., Vanness D. J. (July 2013) "Comparative Research Methods" Merck & Co. Global Health Outcomes, Lansdale, Pennsylvania, 1 day, Invited.

Luce B., Ishak K. I., Connor J., Vanness D. J. (July 2011) "Applying Bayesian and Adaptive Techniques for Comparative Effectiveness Research" Center for Medical Technology Policy, Comparative Effectiveness Research Institute, Santa Fe, New Mexico, 1 day Invited.

Vanness, D. J., Hollenbeak, C. S., (January 2011) "Foundations of Economic Modeling and Evaluation" Evidera, Bethesda, Maryland, 2 days, Invited.

Vanness, D. J., Hollenbeak, C.S. (June 2011) "Introduction to Bayesian Analysis and Applications" Janssen Scientific Affairs, Titusville, New Jersey, 1 day, Invited.

Vanness, D. J., Hollenbeak, C.S. (June 2011) "Introduction to Bayesian Analysis and Applications" Janssen Scientific Affairs, Titusville, New Jersey, 1 day, Invited.

Vanness, D. J., Hollenbeak, C.S. (3 courses, 2006 - 2008) "Introduction to Bayesian Methods" AcademyHealth Annual Research Meeting, Various locations, 1 day, Invited.

Vanness, D. J., Hollenbeak, C.S. (November 2005) "Introduction to Bayesian Analysis and Applications" Medtap Institute, Bethesda, Maryland, 1 day, Invited.

Guest Lectures (selected)

Vanness, D. J. (April 2021). "A Health Opportunity Cost Threshold for Cost-Effectiveness Analysis in the United States," College of Medicine 1st Year Journal Club, Penn State University, Lecture, Invited.

Vanness, D. J. (February 2021). "An Opportunity Cost Threshold for Cost-Effectiveness Analysis in the United States," Population Health Sciences 714 - Economic Evaluation in Health Care, Duke University, Durham, NC, Lecture, Invited.

Vanness, D. J. (April 2020). "A Crash Course in Cost-Effectiveness: 4 Rules of the Road," Prevention and Methodology Training (PAMT) Proseminar, Penn State University, University Park, Pennsylvania, Lecture, Invited.

- Vanness, D. J. (July 2019). "Principles of Machine Learning for Prediction," ISPOR Educational Webinar, International Society for Pharmacoeconomics and Outcomes Research, Webinar, Invited.
- Vanness, D. J. (February 2019). "Introduction to Bayesian Analysis: R We Having Fun Yet?" HPA PhD Methods Seminar, Department of Health Policy and Administration, University Park, Pennsylvania, Lecture, Invited.
- Vanness, D. J. (December 2018). "Assessing the Value of Healthcare Interventions," HPA Online MHA Program, Department of Health Policy and Administration, University Park, Pennsylvania, Lecture, Invited.
- Vanness D. J. (June 2015) "Betting on Better Health: The Rising Importance of Bayesian Analysis in Health Economics and Outcomes Research" Northwestern University Institute for Public Health and Medicine, Chicago, Illinois, Lecture, Invited
- Vanness D. J. (August 2011) "Comparative Effectiveness Research, Back to Bayes-ics" Duke Clinical Research Institute, Durham, North Carolina, Lecture, Invited.
- Vanness D. J. (October 2010) "Comparative Effectiveness Research, Back to Bayes-ics" University of Arkansas Medical School, Division of Pharmaceutical Evaluation and Policy, Little Rock, Arkansas, Lecture, Invited.
- Vanness, D. J. (December 2007) "Different Strokes for Different Strokes: Bayesian and Recursive Partitioning Methods for Comparative Effectiveness and Cost-Effectiveness Analysis when Treatment Effects are Heterogeneous" Dartmouth Institute in Health Policy and Clinical Research, Lebanon, New Hampshire, Lecture, Invited.
- Vanness D. J. (November 2003) "Use of Simulations in Economic Analysis" Dartmouth College Center for the Evaluative Clinical Sciences, Hanover, New Hampshire, Lecture, Invited.

Training Program Administration

- Co-Director, Merck Fellowship in Health Economics, UW-Madison, Madison, Wisconsin, 2005; 2007 – 2008, with John Mullahy (Director) and Dennis L. Fryback (Co-Director)
- Co-Director, T32 MH018029, The Economics of Mental Health, UW-Madison, Madison, Wisconsin, 2007 - 2017, with John Mullahy (Director) and Barbara L. Wolfe (Co-Director)

Post-Doctoral Mentoring

- Gracelyn Cruden, PhD, K01 MH128761 "Refining and Pilot Testing a Decision Support Intervention to Facilitate Adoption of Evidence-Based Programs to Improve Parent and Child Mental Health", Chestnut Health Systems, Inc., Lighthouse Institute-Oregon, Eugene Oregon, 2023 - Present
- Michael Repplinger, MD, UW Institute for Clinical and Translational Research KL2, UW-Madison, Madison, Wisconsin, 2014 – 2017
- Marquita Decker, MD, National Science Foundation / Committee on Institutional Cooperation Alliances for Graduate Education and the Professoriate Professorial Advancement Initiative, 2015 - 2016
- Marquita Decker, MD, Fulbright U.S. Scholars Program, 2014 - 2015

Pre-Doctoral Mentoring

Jillian Strayhorn, F31 DA052140 “Optimizing substance misuse prevention and treatment interventions for enhanced public health impact: Incorporating Bayesian decision analytics into the multiphase optimization strategy,” Pennsylvania State University, University Park, Pennsylvania, 2020 - 2022 (with Linda Collins)

Hannah Ahn, T32 DA017629, “Prevention and Methodology Training Program,” Pennsylvania State University, University Park, Pennsylvania, 2021 - 2022

Jillian Strayhorn, T32 DA017629, “Prevention and Methodology Training Program,” Pennsylvania State University, University Park, Pennsylvania, 2019-2020

Joseph Levy, T32 MH018029, “The Economics of Mental Health,” UW-Madison, Madison, Wisconsin, 2015 – 2017

Jessica Cathey Smith, T32 MH018029, “The Economics of Mental Health,” UW-Madison, Madison, Wisconsin, 2014 – 2016

Sarah Meier, T32 MH018029, “The Economics of Mental Health,” UW-Madison, Madison, Wisconsin, 2012 – 2014

Nathan Tefft, T32 MH018029, “The Economics of Mental Health,” UW-Madison, Madison, Wisconsin, 2006 – 2008

Richard Dunn, T32 MH018029, “The Economics of Mental Health,” UW-Madison, Madison, Wisconsin, 2006 – 2008

Tim Classen, T32 MH018029, “The Economics of Mental Health,” UW-Madison, Madison, Wisconsin, 2004 – 2006

Lauren Olsho, T32 MH018029, “The Economics of Mental Health,” UW-Madison, Madison, Wisconsin, 2006 – 2008

Chair, Doctoral Thesis Advisory Committee

Yinan Wang, Health Policy and Administration, Pennsylvania State University, University Park, Pennsylvania, In Progress.

Hannah Ahn, Health Policy and Administration, Pennsylvania State University, University Park, Pennsylvania, 2023.

Jillian Strayhorn, Human Development and Family Studies, Pennsylvania State University, University Park, Pennsylvania, 2022 (Co-Chair with Linda Collins).

Joseph Levy, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2018

Marquita Decker, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2017

Justin Lo, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2014 (Co-Chair with Mari Palta)

Member, Doctoral Thesis Advisory Committee

Yifang Yan, Industrial and Manufacturing Engineering, Pennsylvania State University, University Park, Pennsylvania, In Progress.

Tasfia Roshnee, Industrial and Manufacturing Engineering, Pennsylvania State University, University Park, Pennsylvania, In Progress.

Orville Mondal, Economics, Pennsylvania State University, University Park, Pennsylvania, 2023.

Di Yang, Health Policy and Administration, Pennsylvania State University, University Park, Pennsylvania, 2023.

Qiang (Neal) Hao, Health Policy and Administration, Pennsylvania State University, University Park, Pennsylvania, 2023.

Rey Zafarnejad, Industrial and Manufacturing Engineering, Pennsylvania State University, University Park, Pennsylvania, 2023.

Linh Tran, Health Policy and Administration, Pennsylvania State University, University Park, Pennsylvania, 2022

Haleh Ramian, Health Policy and Administration, Pennsylvania State University, University Park, Pennsylvania, 2021

Evan Nelson, Clinical Investigation, UW-Madison, Madison, Wisconsin, 2019

Prachi Arora, Social and Administrative Pharmacy, UW-Madison, Madison, Wisconsin, 2017

Lina Vera-Cala, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2016

Jessica Cathey Smith, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2016

Hollis Moore, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2015

Heide Jackson, Sociology, UW-Madison, Madison, Wisconsin, 2015

Ifna Ejebe, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2015

Kimberly Johnson, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2014

Kara Mandell, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2014

Sarah Meier, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2013

Jia Pu, Social and Administrative Pharmacy, UW-Madison, Madison, Wisconsin, 2013

Lauren Wisk, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2013

Elise Wu, Industrial and Systems Engineering, UW-Madison, Madison, Wisconsin, 2013

Daniel Pinto, Physiotherapy, University of Otago, New Zealand, 2012

Dan Wei, Economics, UW-Madison, Madison, Wisconsin, 2010

CM Schussler-Fiorenza, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2009

Nathan Tefft, Economics, UW-Madison, Madison, Wisconsin, 2008

Richard Dunn, Economics, UW-Madison, Madison, Wisconsin, 2008

Brian Harahan, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2008

Theresa Hoeft, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2008

Kirstie Danielson, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2007

Cecelia Bellcross, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2007

Janel Hanmer, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2007

Perri Morgan, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2007

Marlon Mundt, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2007

Katherine Sullivan-Dillie, Committee Degree, UW-Madison, Madison, Wisconsin, 2006

Tim Classen, Economics, UW-Madison, Madison, Wisconsin, 2006

Lauren Olsho, Economics, UW-Madison, Madison, Wisconsin, 2006

Kathryn Flynn, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2006

Lin Wang, Biostatistics, UW-Madison, Madison, Wisconsin, 2005

Ritesh Banerjee, Economics, UW-Madison, Madison, Wisconsin, 2005

Nilay Shah, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2005

Elise Gould, Economics, UW-Madison, Madison, Wisconsin, 2003

Henry Henk, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2003

Chair, Master's Thesis Advisory Committee

Steph Karpinski, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2018

Heide Jackson, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2015

Ryan Schmocker, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2015

Hanyang Chen, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2008

Rosa Mak, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2007

Sarina Schragger, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2006

Michael Phy, Clinical Research, Mayo Clinic College of Medicine, Rochester, Minnesota, 2004

Member, Master's Thesis Advisory Committee

Laura Gregor, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2017

Hollis Moore, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2013

Andrew Peterson, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2010

Michael Gilbert, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2006

Parthiv Vora, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2005

Amy Albanese, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2005

Tara Breslin, Population Health Sciences, UW-Madison, Madison, Wisconsin, 2005

Chair, Master of Public Health Capstone Committee

Caleb Ollech, UW-Madison, Madison, Wisconsin, 2017

Elizabeth Wendt, UW-Madison, Madison, Wisconsin, 2017

Member, Master of Public Health Capstone Committee

Neelam Dhadankar, UW-Madison, Madison, Wisconsin, 2018

Erin Hammer, UW-Madison, Madison, Wisconsin, 2018

Megan Crowe, UW-Madison, Madison, Wisconsin, 2017

Undergraduate Honors Thesis Supervisor

Derek Deihl, "Assessing the Value of Bimekizumab for TNF-a Inhibitor-Experienced Patients with Psoriatic Arthritis: A Cost-Effectiveness Approach." Pennsylvania State University Schreyer Honors College, University Park, Pennsylvania, 2024.

Rafay Nasir, "The Impact of a Potential Universal Single Payer Healthcare Finance System on Pennsylvania Hospital Revenue." Pennsylvania State University Schreyer Honors College, University Park, Pennsylvania, 2021.

Directed Undergraduate Student Learning

Adam Ostrovsky, Penn State, "Recreating the Kefauver Analysis of Prescription Drug Costs as Hours of Work." Supervision of Unfunded Undergraduate Research (2019 - 2021).

Arizza Afable, Penn State, "Summer Internship (COVID-19 Population Health Research)." Internships Supervised (May 2020 - August 2020).

Finn Norton, Penn State, "Summer Internship (COVID-19 Population Health Research)." Internships Supervised (May 2020 - August 2020).

Julia Slaman, Penn State, "Summer Internship (COVID-19 Population Health Research)." Internships Supervised (May 2020 - August 2020).

RESEARCH

Intellectual Contributions

Articles Published in Refereed Journals

- Shea L, Cooper D, Ventimiglia J, Frisbie S, Carlton C, Song W, Salzer M, Lee B, Hotez E, Vanness DJ. Self-Reported COVID-19 Vaccine and Booster Acceptance and Hesitancy Among Autistic Adults in Pennsylvania: Cross-Sectional Analysis of Survey Data. *JMIR Public Health and Surveillance*. 2024 Aug 28;10(1):e51054.
- Collins, L. M., Nahum-Shani, I., Guastafarro, K., Strayhorn, J. C., Vanness, D. J., & Murphy, S. A. (2024). Intervention Optimization: A Paradigm Shift and Its Potential Implications for Clinical Psychology. *Annual Review of Clinical Psychology*, 20. DOI: <https://doi.org/10.1146/annurev-clinpsy-080822-051119>
- Strayhorn, J. C., Vanness, D. J., & Collins, L. M. (2024). Optimizing Interventions for Equitability: Some Initial Ideas. *Prevention science : the official journal of the Society for Prevention Research*. DOI: 10.1007/s11121-024-01644-3, ISBN/ISSN: 1389-4986
- Hsuan C, Vanness DJ, Zebrowski A, Carr BG, Norton EC, Buckler DG, Wang Y, Leslie DL, Dunham EF, Rogowski JA. Racial and ethnic disparities in emergency department transfers to public hospitals. *Health Services Research*. 2024;59(2):e14276.
- Strayhorn, J. C. (Author - Graduate Student), Cleland, C. M., Vanness, D. J., Wilton, L., Gwadz, M., & Collins, L. M. (2024). Using decision analysis for intervention value efficiency to select optimized interventions in the multiphase optimization strategy. *Health Psychology*, 43(2), 89–100. <https://doi.org/10.1037/hea0001318>
- Song W, Salzer MS, Becker A, Vanness DJ, Lee BK, Cooper D, et al. Exploring the relationship between COVID-19 and autistic adults' community participation: Findings from a two-timepoint longitudinal study. *Research in Autism Spectrum Disorders*. 2023 Nov 1;109:102278.
- Stevens A, Meier J, Bhat A, Knight SJ, Vanness DJ, Balentine C. Reassessing surgical guidelines for papillary thyroid cancer impact on survival: Expanding indications for lobectomy. *Surgery*. 2023 Sep 1;174(3):542–8.
- Hsuan, C., Carr, B. G., Vanness, D. J., Wang, Y., Leslie, D. L., Dunham, E., & Rogowski, J. (2023). A Conceptual Framework for Optimizing the Equity of Hospital-Based Emergency Care: The Structure of Hospital Transfer Networks. *The Milbank Quarterly*, 101(1), 74--125. DOI: 10.1111/1468-0009.12609, ISBN/ISSN: 1468-0009
- Strayhorn, J. C. (Author - Graduate Student), Collins, L. M., & Vanness, D. J. (2023). A posterior expected value approach to decision-making in the multiphase optimization strategy for intervention science. *Psychological Methods*. DOI: 10.1037/met0000569, ISBN/ISSN: 1939-1463
- Neuman, H. B., Schumacher, J. R., Edge, S. B., Ruddy, K. J., Partridge, A. H., Yu, M., Vanness, D. J., Hanlon, B. M., Le-Rademacher, J. G., Yang, D.-Y., Havlena, J., Strand, C. A., & Greenberg, C. C. (2023). The influence of anatomic stage and receptor status on first recurrence for breast cancer within 5 years (AFT-01). *Cancer*, 129(9), 1351--1360. DOI: 10.1002/cncr.34656, ISBN/ISSN: 1097-0142
- Vallejo-Torres, L., Claxton, K., Edney, L. C., Karnon, J., Lomas, J., Ochalek, J., Paulden, M., Stadhouders, N., & Vanness, D. J. (2023). Challenges of calculating cost-effectiveness thresholds. *The Lancet Global Health*. 2023 Oct 1;11(10):e1508.
- Mukherjee, K., Gunsoy, N. B., Kristy, R. M., Cappelleri, J. C., Roydhouse, J., Stephenson, J. J., Vanness, D. J., Ramachandran, S., Onwudiwe, N. C., Pentakota, S. R., Karcher, H., & Di

- Tanna, G. L. (2023). Handling Missing Data in Health Economics and Outcomes Research (HEOR): A Systematic Review and Practical Recommendations. *PharmacoEconomics*. DOI: 10.1007/s40273-023-01297-0, ISBN/ISSN: 1179-2027
- Schumacher, J. R., Wiener, A. A., Greenberg, C. C., Hanlon, B., Edge, S. B., Ruddy, K. J., Partridge, A. H., Le-Rademacher, J. G., Yu, M., Vanness, D. J., Yang, D.-Y., Havlena, J., Strand, C., & Neuman, H. B. (2023). Local/Regional Recurrence Rates After Breast-Conserving Therapy in Patients Enrolled in Legacy Trials of the Alliance for Clinical Trials in Oncology (AFT-01). *Annals of Surgery*, 277(5), 841. DOI: 10.1097/SLA.0000000000005776, ISBN/ISSN: 0003-4932
- Schumacher JR, Neuman HB, Yu M, Vanness DJ, Si Y, Burnside ES, Ruddy KJ, Partridge AH, Schrag D, Edge SB, Zhang Y. Surveillance imaging vs symptomatic recurrence detection and survival in stage II-III breast cancer (AFT-01). *Journal of the National Cancer Institute*. 2022 Oct;114(10):1371-9.
- Padula WV, Kreif N, Vanness DJ, Adamson B, Rueda JD, Felizzi F, Jonsson P, IJzerman MJ, Butte A, Crown W. Machine Learning Methods in Health Economics and Outcomes Research—The PALISADE Checklist: A Good Practices Report of an ISPOR Task Force. *Value in Health*. 2022 Jul 1;25(7):1063-80.
- Shea, L. L., Becker, A., Lee, B., Miller, K. K., Cooper, D., Anderson, K., Salzer, M. S., & Vanness, D. J. (2022). Self-reported COVID-19 vaccination acceptance and hesitancy among autistic adults. *Vaccine*, 40(24), 3288-3293. DOI: 10.1016/j.vaccine.2022.04.060, ISBN/ISSN: 0264-410X
- Salazar MM, DeCook LJ, Butterfield RJ, Zhang N, Sen A, Wu KL, Vanness DJ, Khera N. End-of-Life Care in Patients Undergoing Allogeneic Hematopoietic Cell Transplantation. *Journal of palliative medicine*. 2022 Jan 1;25(1):97-105.
- Collins, L. M., Strayhorn, J. C. (Co-Author - Graduate Student), & Vanness, D. J. (2021). One view of the next decade of research on behavioral and biobehavioral approaches to cancer prevention and control: intervention optimization. *Translational Behavioral Medicine*, 11(11). DOI: <https://doi.org/10.1093/tbm/ibab087>
- Briggs, A. H., Goldstein, D. A., Kirwin, E., Meacock, R., Pandya, A., Vanness, D. J., & Wisløff, T. (2021). Estimating (quality-adjusted) life-year losses associated with deaths: With application to COVID-19. *Health Economics*, 30(3):699-707.
- Vanness, D. J., Lomas, J., & Ahn, H. (Co-Author - Graduate Student) (2021). A health opportunity cost threshold for cost-effectiveness analysis in the United States. *Annals of Internal Medicine*, 174(1):25-32.
- Mattingly, II, T. J., Seo, D., Ostrovsky, A. M. (Co-Author - Undergraduate Student), Vanness, D. J., & Conti, R. M. (2020). 60 Years after Kefauver: Household income required to buy prescription drugs in the United States and abroad. *Research in Social and Administrative Pharmacy*.
- Mau, L.-W., Preussler, J. M. (Author - Graduate Student), Burns, L. J., Leppke, S., Majhail, N. S., Meyer, C. L., Mupfudze, T., Saber, W., Steinert, P., & Vanness, D. J. (2020). Healthcare Costs of Treating Privately Insured Patients with Acute Myeloid Leukemia in the United States from 2004 to 2014: A Generalized Additive Modeling Approach. *PharmacoEconomics*, 1--12.
- Brunner, M. C., Sheehan, S. E., Yanke, E. M., Sittig, D. F., Safdar, N., Hill, B., Lee, K. S., Orwin, J. F., Vanness, D. J., Hildebrand, C. J., & others (2020). Joint Design with Providers of Clinical Decision Support for Value-Based Advanced Shoulder Imaging. *Applied clinical informatics*, 11(1), 142--152.

- Insinga, R. P., Vanness, D. J., Feliciano, J. L., Vandormael, K., Traore, S., Ejzykowicz, F., & Burke, T. (2019). Cost-effectiveness of pembrolizumab in combination with chemotherapy versus chemotherapy and pembrolizumab monotherapy in the 1st-line treatment of squamous NSCLC in the US. *Current medical research and opinion*, 35(7), 1241-1256.
- Ross, A. B., Chan, B. Y., Paul, H. Y., Reppinger, M. D. (Author - Mentee), Vanness, D. J., & Lee, K. S. (2019). Diagnostic accuracy of an abbreviated MRI protocol for detecting radiographically occult hip and pelvis fractures in the elderly. *Skeletal radiology*, 48(1), 103--108.
- Karpinski, S. A. (Author – Graduate Student), Look, K. A., & Vanness, D. J. (2019). Factors Associated with County-Level Variation in the Prescription of Statins. *Journal of managed care & specialty pharmacy*, 25(12), 1358--1365.
- Mau, L.-W., Meyer, C., Burns, L. J., Saber, W., Steinert, P., Vanness, D. J., Preussler, J. M. (Co-Author - Graduate Student), Silver, A., Leppke, S., Murphy, E. A., & others (2019). Reimbursement, Utilization, and 1-Year Survival Post-Allogeneic Transplantation for Medicare Beneficiaries with Acute Myeloid Leukemia. *JNCI cancer spectrum*, 3(4), pkz048.
- Schumacher, J. R., Neuman, H. B., Chang, G. J., Kozower, B. D., Edge, S. B., Yu, M., Vanness, D. J., Si, Y., Jacobs, E. A., Francescatti, A. B., & others (2018). A National Study of the Use of Asymptomatic Systemic Imaging for Surveillance Following Breast Cancer Treatment (AFT-01). *Annals of surgical oncology*, 1--9.
- Levy, J. (Author – Graduate Student), Rosenberg, M., & Vanness, D. J. (Senior Author) (2018). A transparent and consistent approach to assess US outpatient drug costs for use in cost-effectiveness analyses. *Value in Health*, 21(6), 677--684.
- Balentine, C. J., Vanness, D. J., & Schneider, D. F. (2018). Cost-effectiveness of lobectomy versus genetic testing (Afirmaltextregistered) for indeterminate thyroid nodules: Considering the costs of surveillance. *Surgery*, 163(1), 88--96.
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Population-based Research Optimizing Screening through Personalized Regimens (PROSPR) (U54) Special Panel, National Cancer Institute (2011)

Manuscripts

Advances in Autism, American Journal of Accountable Care, American Journal of Health Economics, American Journal of Managed Care, American Journal of Preventive Medicine, Applied Economics, Annals of Internal Medicine, Annals of Surgery, Arthritis and Rheumatism, Arthritis Care and Research, Clinical Gastroenterology and Hepatology, Clinical Trials - Journal of the Society for Clinical Trials, Medical Research Methodology, Epidemiology Research International, Health Economics, Health Services Research, International Journal of Mental Health Systems, Journal of the American Medical Association, Journal of Comparative Effectiveness Research, Journal of Mental Health Policy and Economics, Journal of Mental Health Services, Journal of the National Cancer Institute, Liver Transplantation, Mayo Clinic Proceedings, Medical Care, Medical Decision Making, PharmacoEconomics, Preventing Chronic Disease, Social Science and Medicine, Tobacco Control, Transplant and Cellular Therapy, Value in Health, Radiology

Consulting/Advising

Apriori Bayesian Consulting, LLC, State College, Pennsylvania, Managing Member (2014 – Present). Research consulting to the life sciences industry, approximately 100 hours per year. Clients include: The University of Connecticut, New York University, Medical Decision Modeling Inc., Merck, National Marrow Donor Program / BeTheMatch.org, Bristol Myers Squibb, Novartis, Evidera, Ortho McNeil Janssen.

Presentations Given (recent and selected)

Vanness, D. J. (March 27, 2024). "Decision analysis for intervention value-efficiency (DAIVE) and cost-effectiveness analysis of multicomponent interventions: different tools for different decisions," Center for Advancement and Dissemination of Intervention Optimization (cadio) Webinar Series, New York University, 15 in attendance, Invited. International.

Vanness, D. J. (March 27, 2024). "Responsive and Dynamic Intervention Optimization (RADIO): A Bayesian Framework for Developing Effective, Affordable, Scalable and Efficient Multicomponent Interventions," ConVOI Seminar Series, Collaborative Network for Value of Information (ConVOI), 15 in attendance. International.

Vanness, D. J. (October 26, 2023). "How Many QALYs does a Dollar Buy in the U.S. Healthcare System? A Discussion About Opportunity Costs," Evidence Synthesis, Modeling & Communication Meeting, Evidera, Bethesda, MD, 100 in attendance, Invited. International.

Vanness, D. J. (October 19, 2023). "Decision Analysis for Intervention Value-Efficiency and Cost-Effectiveness Analysis of Multicomponent Interventions: Different Tools for Different Decisions," Addiction Health Services Research Conference, Center for Health Economics of Treatment Interventions for Substance Use Disorder, HCV, and HIV, New York, NY, 70 in attendance, peer-reviewed/refereed, Accepted. International.

Vanness, D. J., & Basu, A. (University of Washington). (September 26, 2023). "Methods for Cancer Health Economics Research," HEROiC Conference on Health Economic Research Collaborations to Improve Cancer Care, National Institutes of Health, National Cancer Institute, Bethesda, MD, USA, 50 in attendance, Invited. National.

Vanness, D. J. (May 9, 2023). "Dynamic Intervention Optimization (DIO): A Bayesian Adaptive Framework for Multicomponent Intervention Optimization Using Expected Net Benefit of

- Sampling," ISPOR Annual 2023, International Society for Pharmacoeconomics and Outcomes Research, Boston, MA, USA.
- Vanness, D. J., Phelps, C., Lavelle, T., Campbell, J., ISPOR Annual 2022, International Society for Pharmacoeconomics and Outcomes Research, Washington, DC, "How Best to Frame Cost-Effectiveness Thresholds for Policy Making in the US," 50 in attendance, Accepted. (May 18, 2022). International.
- Vanness, D. J., Padula, W., Adamson, B., Crown, W., ISPOR Annual 2022, International Society for Pharmacoeconomics and Outcomes Research, Washington, DC, "How to Apply Machine Learning to Health Economics and Outcomes Research: Findings from the ISPOR Machine Learning Task Force," 300 in attendance, Contributed. (May 16, 2022). International.
- Vanness, D. J. (October 2021). "A Health Opportunity Cost Threshold for Cost-Effectiveness Analysis in the United States," Center for Pharmaceutical Outcomes Research, University of Colorado Skaggs School of Pharmacy, Denver, Colorado (via Zoom).
- Vanness, D. J. (October 2021). "An Introduction to Bayesian Statistics for Evaluation and Decision-Making," Center for Drug Use and HIV Research Seminar, New York University, New York, NY (via Zoom).
- Vanness, D. J. (May 2021). "Extending the Multiphase Optimization Strategy (MOST) to Recursive and Dynamic Intervention Optimization (RADIO): A Bayesian Framework for Developing Effective, Affordable, Scalable and Efficient Multicomponent Interventions," Centre for Health Economics, York University, York, United Kingdom, Lecture, Invited. (via Zoom).
- Vanness, D. J. (February 2021). "A Health Opportunity Cost Threshold for Cost-Effectiveness Analysis in the United States," Duke University, Durham, North Carolina (via Zoom).
- Vanness, D. J. (December 2020). "An Introduction to Cost-Effectiveness Analysis Principles, Practices and Policy," U.S. Congressional Budget Office, Health, Retirement and Long-Term Analysis Division, Washington, DC, Lecture, Invited. (via Zoom).
- Vanness, D. J., Grueger, J., Danzon, P., Pearson, S., & Chapman, R. (July 2019). "Philosophical approaches to determining a cost-effectiveness threshold in the US," Perspectives on cost-effectiveness thresholds in the United States, Institute for Clinical and Economic Review (ICER-Review), Boston, Massachusetts, Panel, Invited. (via Zoom).
- Vanness, D. J., Gunsoy, N., Baio, G., & Onwudiwe, N. (November 2018). "Are Missing Data Properly Accounted for in Health Economics and Outcomes Research," ISPOR Europe 2018, International Society for Pharmacoeconomics and Outcomes Research, Barcelona, Spain, Seminar, Peer-reviewed/refereed.
- Vanness, D. J., Capkun, G., Ramagopalan, R., & Cox, A. (May 2018). "Principles of Effective Machine Learning Applications in Real World Evidence," ISPOR 2018, International Society for Pharmacoeconomics and Outcomes Research, Baltimore, MD, Workshop, Peer-reviewed/refereed.
- Vanness D. J. (February 2018) "Analysis of Health Care Costs: Top Ten Methodological Challenges," BMT Tandem Meetings, Salt Lake City, Utah, Plenary session, Invited.
- Vanness D. J. (February 2018) "Roadmap to Assessing the Value of CAR-T Cell Therapies," BMT Tandem Meetings, Salt Lake City, Utah, Plenary session, Invited.
- Vanness D. J., Preussler J. M., Burns L. J., Denzen E., Leppke S., Majhail N.S., Meyer C., Mupfudze T., Saber W., Silver A., Steinert P., Mau L. W. (February 2018) "Estimating Propensity Scores for the Receipt of Allogeneic Hematopoietic Cell Transplantation (AlloHCT) in Outcomes Research using Claims Data: A Machine Learning Approach." BMT Tandem Meetings, Salt Lake City, Utah, Poster session, Peer-reviewed/refereed.

- Capkun-Niggli G., Rigg J., Vanness D.J. (May 2017) "Demystifying Predictive Analytics and an Introduction to Recent Methodological Innovations." International Society for Pharmacoeconomics and Outcomes Research, 22nd Annual International Meeting, Boston, Massachusetts, Workshop, Peer-reviewed/refereed.
- Lomas J. R., Karnon J., Stadhouders N., Vanness D. J. and Claxton K. (July 2017) "Estimating Health Opportunity Costs: Relevance to Health Care Decision Making and Approaches to Estimation." International Health Economics Association Biennial World Congress, Organized session, Peer-reviewed/refereed.
- Vanness D. J. (February 2017) "WHY CER HCT (Why Are We Engaged in Comparative Effectiveness Research for Hematopoietic Cell Transplantation)?" BMT Tandem Meetings, Orlando, Florida, Plenary session, Invited.
- Vanness D. J. (February 2016) "Comparative Effectiveness Research: Challenges and Opportunities for Setting the HCT Research Agenda" in symposium on "Setting the Stage for Engagement in Patient-Centered Outcomes Research" BMT Tandem Meetings, Honolulu, Hawaii, Plenary session, Invited.
- Vanness D. J. (November 2015) "A Bayesian Adaptive Framework for Coverage with Evidence Development." Mathematica Policy Research Center on Health Care Effectiveness, Webinar, Invited.
- Basu A., Vanness D. J., Stull D. A., Thompson D. (May 2013) "Econometric Methods for Assessing Treatment Effect Heterogeneity." International Society for Pharmacoeconomics and Outcomes Research, 18th Annual International Meeting, New Orleans, Louisiana, Workshop, Peer-reviewed/refereed.
- Vanness D. J. and Benedict A. (November 2011) "Generalized Evidence Synthesis in Comparative Effectiveness Research: Could the Evidence Base be Broadened in Mixed Treatment Comparisons?" International Society for Pharmacoeconomics and Outcomes Research, 14th Annual European Congress, Madrid, Spain, Workshop, Peer-reviewed/refereed.
- Vanness D. J., Benedict A., Roy S., Cifaldi M. (November 2010) "Comparative Effectiveness of Biologic Therapies for Treating Rheumatoid Arthritis (RA) in Patients Who Failed an Anti-Tumor Necrosis Factor Agent: A Meta-Regression Analysis," American College of Rheumatology, 74th Scientific Meeting, Atlanta, Georgia, Scientific Session, Peer-reviewed/refereed.
- Vanness D. J., Fleurence R, Fahrback K. (November 2010) "Understanding Mixed Treatment Comparisons (MTCs): What do the Results Mean and How Should They Be Used?" International Society for Pharmacoeconomics and Outcomes Research, 13th Annual European Congress, Prague, Czech Republic, Workshop, Peer-reviewed/refereed.
- Vanness D. J., Hanmer J. (June 2010) "Health Utility Crosswalks: a Bayesian Beta Regression Approach," American Society of Health Economists, Third Biennial Research Meeting, Ithaca, New York, Scientific Session, Peer-reviewed/refereed.
- Vanness D. J., Fleurence R, Fahrback K. (May 2010) "The Use of Observational Evidence for Comparative Effectiveness Research: Is it Fit-For-Purpose?" International Society for Pharmacoeconomics and Outcomes Research, 15th Annual International Meeting, Atlanta, Georgia, Workshop, Peer-reviewed/refereed.
- Vanness D. J., Fleurence R, Fahrback K. (May 2010) "Model Assumptions in Mixed Treatment Comparisons (MTCs): Why they Matter and Why You Should Care" International Society for Pharmacoeconomics and Outcomes Research, 15th Annual International Meeting, Atlanta, Georgia, Workshop, Peer-reviewed/refereed.

- Vanness D. J. (June 2009) "An Introduction to Bayesian GLM Methods for CEA with Individual Data" AcademyHealth, 26th Annual Research Meeting, Chicago, Illinois, Workshop, Peer-reviewed/refereed
- Vanness D. J. (June 2008) "Recursive Partitioning Approaches to Modeling Genetics as a Source of Treatment Effect Heterogeneity," American Society of Health Economists, Second Biennial Research Meeting, Durham, North Carolina, Scientific Session, Peer-reviewed/refereed.
- Vanness D. J., Smith M. A. (June 2005) "My Own Benevolent Dictator: Merging Rank Dependent Utility with Social Welfare Functions to Improve Policy Making and Individual Treatment Decisions," AcademyHealth, Annual Research Meeting, Boston, Massachusetts, Scientific Session, Peer-reviewed/refereed.
- Vanness D. J. (February 2004) "CT Colonography: Could it be Cost-Effective?" Mayo Clinic College of Medicine Grand Rounds, Rochester, Minnesota, Lecture, Invited.
- Vanness D. J. (June 2003) "Using Expected Social Welfare Functions to Evaluate Uncertain Technology: The Example of DNA-Based Stool Testing for Colorectal Cancer," International Health Economics Association, Fourth World Congress, San Francisco, California, Scientific Session, Peer-reviewed/refereed.
- Vanness D. J. (September 2002), "A Structural Model of Family Valuation and Choice Of Employer-Sponsored Health Insurance In The United States," Eleventh European Workshop on Econometrics and Health Economics, Lund, Sweden, Workshop, Peer-reviewed/refereed.
- Vanness D. J., Kim W. R. (September 2001) "Empirical Modeling, Simulation and Uncertainty Analysis Using Markov Chain Monte Carlo: Ganciclovir Prophylaxis in Liver Transplantation," Tenth European Workshop on Econometrics and Health Economics, London, United Kingdom, Workshop, Peer-reviewed/refereed.
- Vanness D. J., Wolfe B. L. (June 1999) "Trends in Employer Sponsored Insurance: How Have Low-Wage and High-Cost Workers Fared?" International Health Economics Association Conference, Second International Meeting, Rotterdam, Netherlands, Scientific Session, Peer-reviewed/refereed.
- Vanness D. J., Wolfe BL (January 1998) "The Nondiscrimination Law and Health Insurance: For Whom Did it Increase Coverage?" Allied Social Sciences Association, Annual Meeting, American Economics Association session, Chicago, Illinois, Scientific Session, Peer-reviewed/refereed.

Contracts, Grants, and Sponsored Research

Active

- Hsuan, C. (Principal Investigator, Pennsylvania State University), "Structural Racism and Discrimination in Emergency Department Transfers: Unintended Consequences of the Emergency Medical Treatment and Labor Act (EMTALA)," R01MD017495, National Center on Minority Health and Health Disparities, May 1, 2022 - December 31, 2026. (Role: Consultant)
- Cantrell, J. (Principal Investigator, New York University) "Using Multiphase Optimization Strategy (MOST) to Optimize a Cost-effective, Sustainable and Scalable Smoking Cessation Package for Smokers in HIV Clinical Care," R01CA268932, National Cancer Institute, July 1, 2022 – June 30, 2027. (Role: Consultant)
- Copenhaver, M. (Principal Investigator, University of Connecticut) "Optimizing evidence-based HIV prevention targeting people who inject drugs on PrEP," R01DA055534, National Institute on Drug Abuse, September 1, 2022 – June 30, 2027. (Role: Consultant)

Complete

- Strayhorn, J.S. (Trainee), Collins, L. M. (Co-Mentor), Vanness, D. J. (Co-Mentor), 5% credit, "Optimizing substance misuse prevention and treatment interventions for enhanced public health impact: Incorporating Bayesian decision analytics into the multiphase optimization strategy," 5 F31 DA052140, National Institute on Drug Abuse, Federal Agencies. Total requested: \$80,422.00, Total Anticipated: \$72372, Amount Funded (Total or To Date, as applicable): \$36186. (submitted: December 5, 2019, date funding awarded: August 3, 2020, total start and end of funding: July 1, 2020 - June 30, 2022.
- Vanness, D. J. (Principal Investigator), 100% credit, "Community Participation, Service Needs, and Health Outcomes among Adults with ASD," W81XWH-20-1-0435, U.S. Department of Defense through a subcontract with Drexel University. Total requested: \$139,440.00, Total Anticipated: \$139440, Amount Funded (Total or To Date, as applicable): \$45114. (submitted: July 16, 2019, date funding awarded: August 11, 2020, total start and end of funding: July 1, 2020 - June 30, 2023. MSN219104 (10/1/2017-9/30/2018), \$75,000, National Marrow Donor Program/BeTheMatch.org "Health Economics and Cost-Effectiveness Research" Role: to continue to support the health economics and cost-effectiveness research mission of NMDP/BeTheMatch.org in studies related to hematopoietic cell transplantation through project scientific leadership and research team mentoring.
- MSN188862 (2/1/2016-1/31/2018), \$13,924, National Marrow Donor Program/BeTheMatch.org, "PCORI Engagement Award Subcontract to "Engaging Patients in Developing a Patient-Centered Hematopoietic Cell Transplant Research Agenda" Role: steering committee member and scientific advisor on comparative effectiveness research and issues related to patient financial experiences as a result of undergoing HCT.
- CE-1304-6543 (PI: Greenberg CC) (3/1/2014-2/28/2017), 10% effort, PCORI (Through The Alliance for Clinical Trials in Oncology Foundation), "Post-Treatment Surveillance in Breast Cancer: Bringing CER to the Alliance" The goal of the study is to evaluate patterns of outcomes under alternative post-breast cancer surveillance, develop models to optimize surveillance and prioritize future research. Role: Co-Investigator responsible for collaborating in the design and execution of Bayesian longitudinal competing risks model of recurrence and survival and value of information analysis related to post-breast cancer surveillance in key subpopulations of interest.
- I21 HX001852 (PI: Brunner H) (1/1/2017-12/23/2017) 0% effort, Department of Veterans Affairs HSR&D, "Co-designing Clinical Decision Support to Advance Value-based Shoulder Imaging" Role: Consultant responsible for consultative assistance in choosing informative methods for analysis and interpretation of adoption as well as economic outcomes measures. These methods will also assist in dissemination of results.
- MSN211062 (2/1/2017-9/30/2017) \$10,855, National Marrow Donor Program/BeTheMatch.org, "CMS Cost-Effectiveness Research Project" Developmental work for cost-effectiveness analysis of AlloHCT vs. chemotherapy for AML using linked CMS claims data with Center for International Blood and Marrow Transplantation Research registry data.
- 1R01CA155347 (PI: Weinberg D) (8/01/2011-6/30/2016) 5% effort, NIH/NCI, "Comparative Effectiveness of Virtual and Optical Colonoscopy for CRC Surveillance" The major goal of the project is to evaluate the test characteristics of CT colonography (CTC) for post-resection surveillance of patients with CRC and to investigate the patient acceptability and cost-effectiveness of CTC compared to optical colonoscopy in this setting. Role: Co-Investigator responsible for collection of cost data from UW site and collaboration on cost-effectiveness analysis.

- 1 R18 DK083934 (PI: Chang M) (4/11/2011 – 3/31/2016) 1.5% effort, NIH/NIDDK, “Mother in Motion Program to Prevent Weight Gain in Overweight/Obese WIC Mothers” The Mother In Motion (MIM) project aims to prevent weight gain among African American and white overweight/obese WIC mothers 18-39 years old by promoting healthy eating, physical activity, and stress management. MIM will deliver theory-based, culturally-sensitive intervention messages via a combination of DVDs featuring African American and white overweight and obese WIC mothers who will participate in a healthy lifestyle intervention patterned after MIM and peer support group teleconferences led by MSUE nutrition (paraprofessional) educators who will be trained in motivational interviewing. Role is to conduct incremental cost effectiveness analysis.
- MSN176766 (5/1/2014-9/30/2016), \$199,173, National Marrow Donor Program/BeTheMatch.org, “Developing a Framework for Cost-Effectiveness of Hematopoietic Cell Transplantation” Contract to evaluate, assist, design and/or prioritize ongoing and future cost-effectiveness and cost research on HCT being conducted by the National Marrow Donor Program and the Center for International Bone Marrow Transplantation Research. Develop protocol and lead investigation into cost-effectiveness of allogeneic HCT for adults aged 50-65 with AML. Program extended to develop analysis of outcomes and costs using CMS and Optum data
- 1U01CA152958-01 (PI: Mandelblatt J) (09/01/12-08/31/15) 5% effort, NIH/NCI, “Comparative Modeling: Informing Breast Cancer Control Practice & Policy” The major goal of this project under the CISNET initiative is to compare the impact of observed practice patterns to the benefits and harms of targeting new screening and adjuvant therapy modalities based on risk factors and molecular subtypes of breast cancer and to explore the impact of improving access to new services. Prof. Vanness’ role is to provide consultation on simulations of the cost-effectiveness of personalized breast cancer screening regimens and to supervise demographic analysis of non-cancer mortality for incorporation into simulations. Role: Co-Investigator.
- NIAID HHSN272200900052C (PI: Busse W) (1/1/2014-6/30/2014) 10% effort, “Inter-City Asthma Consortium: Preventive Omalizumab or Step-up Therapy for Severe Fall Exacerbations (PROSE) study (NCT01430403).” The goal of the PROSE study is to determine whether step-up therapy, either as omalizumab therapy or step-up with ICS therapy, administered prior to the period of anticipated fall exacerbations, can prevent a severe asthma exacerbation as compared to current guidelines-based treatment. Prof. Vanness’ role is to estimate treatment and outcome related costs and conduct cost-effectiveness analysis. Role: Collaborating Scientist
- 1RC4HL106363 (PI: Mullins CD) (9/20/2010 – 8/31/2013) 10% effort, NIH/NHLBI, “Do Bayesian Adaptive Trials Offer Advantages for CER?” The major goal of this project is to determine whether Bayesian adaptive designs currently in use for early phase clinical trials are suitable for pragmatic comparative effectiveness trials. Personal role is to develop mixed treatment comparison models to synthesize evidence existing at the time ALLHAT was conducted and develop informative priors for the adaptive design.
- MSN143794 (7/1/2011 – 11/30/2013) \$64,205, United BioSource Corporation, “Pragmatic Approaches to Comparative Effectiveness” The goal of this initiative is to develop methods for comparative effectiveness research that accurately and efficiently account for uncertainty and heterogeneity of treatment effects. The research will include methods development linking evidence synthesis, analysis of individual patient data and design of prospective studies.
- UL1RR025011 (PI: Drezner MK) (08/01/2010 – 07/31/2011) 5% effort, Institutional CTSA (UW-Madison) Pilot Grant Program: Disparities in Wisconsin’s Diabetes Outcomes: What can we learn from emerging data? (Kuo, Project PI) The major goal of this project is to pilot test the ability to study disparities in diabetic care, control, and co-morbid conditions, using medical claim records from WHIO, a large group of commercially insured pre-diabetic patients in Wisconsin. Supported in part by grant 1UL1RR025011 from the Clinical & Translational Science Award (CTSA) program of NCCR/NIH. Personal role is to serve as methodological senior mentor.

MSN105176 (4/1/05 – 12/31/08) \$84,911, PACRIN-6664#R02PAPP01 (Subcontract to PI: Johnson CD) "American College of Radiology Imaging Network #6664: National CT Colonography Trial" Computerized tomographic colonography (CTC) employs virtual reality technology to produce two- and three-dimensional images that permit a thorough and minimally invasive evaluation of the entire colorectal structure. The objective of this study is to clinically validate CTC for detecting colorectal neoplasia in a multicenter trial. Dr. Vanness' role was to perform a time-motion study assessing the economic cost of CTC, to integrate trial results into existing colorectal cancer screening simulations as part of the CISNET collaborative and to extend existing simulations to incorporate unique features of screening with CTC.

MSN104819, MSN106911 (9/15/02 – 9/14/08), \$245,664, NIH R01 AG12262-7 (Subcontract to PI: Tosteson ANA) "Evaluation of Osteoporosis Prevention in the Elderly: Benefits and Costs" The purpose of this grant is to assess the benefit and costs of osteoporosis prevention in the elderly, focusing on finding better ways to implement prevention strategy. Dr. Vanness' role as subcontract PI was to build microsimulations to study cost-effectiveness of strategies to screen and treat osteoporosis.

144MJ76 (8/1/2003-7/31/2005), \$33,854, NIH R21 CA10246-1 (Subcontract to PI: McLeod H) "Pharmacogenetics of Advanced Colorectal Cancer" The major goal of the project is to use genetic polymorphism profiles to refine predictions of treatment response and survival in patients with advanced colorectal carcinoma. Dr. Vanness' role as subcontract PI was to incorporate this information into a medical decision-making model.

SERVICE

Service to the University

University/Campus

Graduate Council, Pennsylvania State University, University Park, Pennsylvania.

Chair-Elect. (2024 – Present)

Ad Hoc Committee to Protect and Advance Graduate Education, Co-Chair. (2024 – Present)

Committee on Graduate Student and Faculty Issues, Member. (2024 – Present)

Executive Committee, Member. (2022 – Present)

Elected Representative of the College of Health and Human Development. (2022 – Present)

Committee on Programs and Courses, Chair. (2022 – 2024)

Ad Hoc Committee on the University Budget Allocation Model, Co-Chair. (2023 – 2024)

Joint Curricular Committee, Member. (2019 – 2021)

Alternate Representative of the College of Health and Human Development. (2019 – 2021)

Academic Portfolio and Program Review, Pennsylvania State University, University Park, Pennsylvania.

Steering Committee, Member. (2024 – Present)

Co-Leads Team, Member. (2024 – Present)

Process Development Work Team, Member. (2024 - Present)

Advisory Committee on Graduate Education, The J. Jeffrey and Ann Marie Fox Graduate School, Pennsylvania State University, University Park, Pennsylvania, Member (ex officio) (2024 – Present).

Joint Committee on the University Budget, Pennsylvania State University, University Park, Pennsylvania, Member. (February 2024 - Present)

Faculty Senate, Pennsylvania State University, University Park, Pennsylvania.

Senate Committee on Curricular Affairs, Member (ex officio), (2022-2024)

Data Acquisition Working Group, Pennsylvania State University, University Park, Pennsylvania, Member. (2019 – 2023).

Rock Ethics Institute / Health Policy and Administration Senior Faculty Co-Hire, Pennsylvania State University, University Park, Pennsylvania, Chair (2018 - 2019).

Professional Organization of the Faculty Senate (PROFS), UW-Madison, Madison, Wisconsin, Steering Committee. (2015-2018)

Advanced Computing Initiative Oversight Committee, UW-Madison, Madison, Wisconsin, Member. (2013-2017)

Committee on Faculty Rights and Responsibilities, UW-Madison, Madison, Wisconsin, Member. (2016)

Faculty Senate, UW-Madison, Madison, Wisconsin, Senator. 2005-2007

College

Graduate Program Professors in Charge, Pennsylvania State University, University Park, Pennsylvania, Member. (2022 – Present)

Ombudsperson, Pennsylvania State University, University Park, Pennsylvania, Member. Elected for College of Health and Human Development (2021 – 2024 as alternate; 2024 – Present as Ombudsperson)

Pauline Schmit Russell Distinguished Research Career Award Selection Committee, College of Health and Human Development, Pennsylvania State University, University Park, Pennsylvania, Member. (2024)

Fellowship Awards Committee, College of Health and Human Development, Pennsylvania State University, University Park, Pennsylvania, Member. (2023)

Curricular Affairs Committee, College of Health and Human Development, Pennsylvania State University, University Park, Pennsylvania, Member (Ex Officio). (2019 - 2021)

Community Academic Partnerships Steering Committee, UW Institute for Clinical and Translational Research, UW School of Medicine and Public Health, Madison, Wisconsin, Member. (2007-2008)

Admissions Committee, Medical Scientist Training Program, UW School of Medicine and Public Health, Madison, Wisconsin, Member. (2005)

Department

Executive Committee, Department of Health Policy and Administration, Pennsylvania State University, University Park, Pennsylvania. (2022 – Present)

Ph.D. Program Committee, Department of Health Policy and Administration, Pennsylvania State University, University Park, Pennsylvania, Member (2018 - 2022), Chair (2022 – Present)

Promotion and Tenure Committee, Department of Health Policy and Administration, Pennsylvania State University, University Park, Pennsylvania, Chair (2019-2020, 2021-2022), Member (2020 – 2021, 2022 – Present)

Faculty Development Committee, Department of Health Policy and Administration, Pennsylvania State University, University Park, Pennsylvania, Member (2022 - Present)

Fixed Term Faculty Review Committee, Department of Health Policy and Administration, Pennsylvania State University, University Park, Pennsylvania, Chair. (2019 - 2020)

Executive Committee, Department of Population Health Sciences, UW-Madison, Madison, Wisconsin, Member. (2012 - 2018)

Curriculum Committee, Department of Population Health Sciences, UW-Madison, Madison, Wisconsin, Member. (2009 – 2010; 2012 – 2018)

Qualifying Exam Committee, Department of Population Health Sciences, UW-Madison, Madison, Wisconsin, Member (2004-2008; 2011-2012), Chair (2012-2018)

Faculty Search Committee, Department of Population Health Sciences, UW-Madison, Madison, Wisconsin, Chair (2013-2014)

Admissions and Recruitment Committee, Department of Population Health Sciences, UW-Madison, Madison, Wisconsin, Member (2004 - 2006; 2011).

Service to the Disciplines and to the Profession

Organizing Conferences and Service on Conference Committees

Program Committee, International Society for Pharmacoeconomics and Outcomes Research, Workshop Review Committee Co-Chair. (2016 – 2018).

Scientific Review Committee, Society for Medical Decision Making, Session Co-Chair. (2008)

Biennial Conference Local Organizing Committee, American Society of Health Economists. (2004 - 2006)

Service to Professional and Learned Societies

Tufts University, Center for the Evaluation of Value and Risk in Health Cost-effectiveness Analysis Registry Scientific Advisory Board, Member. (2024 - Present)

Machine Learning Task Force, International Society for Pharmacoeconomics and Outcomes Research, Member. (2019 – 2023)

Awards Council, Award for Excellence in Methodology in Health Economics and Outcomes Research Committee, International Society for Pharmacoeconomics and Outcomes Research, Member. (2020 - 2023)

Statistical Methods in Health Economics and Outcomes Research Special Interest Group, International Society for Pharmacoeconomics and Outcomes Research, Chair (2017 – 2019), Past Chair (2019 – 2020)

Working Committee on Health Services Research and International Issues, Center for International Blood and Marrow Transplantation Research, Member. (2018 – 2019)

Steering Committee, Special Interest Group on Hematopoietic Cell Transplantation Value and Health Economics, American Society for Blood and Marrow Transplantation, Member. (2016 – 2019)

UW-Madison Chapter, American Association of University Professors, President (2015 – 2017), Immediate Past President (2017 - 2018)

Wisconsin Higher Education Council, American Federation of Teachers, Member. (2015-2018)

Outcomes and Economics Committee, American College of Radiology Imaging Network, Member. (2006 – 2014)

Health Outcomes/Metrics Education Working Group, International Society for Pharmacoeconomics and Outcomes Research, Co-Chair. (2010 – 2012)

Health Econometrics Working Group, International Society for Pharmacoeconomics and Outcomes Research, Co-Chair. (2010 – 2013).

Other Public Service

State College Friends School, State College, Pennsylvania
Board of Trustees (2023 – Present)
Finance Committee (2023 – Present)

Madison Waldorf School, Madison, Wisconsin
Executive Committee (2017 – 2018)
Treasurer (2017 – 2018)

Finance Committee (2015 – 2017)

Village of Maple Bluff, Wisconsin, Building Board. (2017 – 2018)

Planning Committee, All-City Swim, Madison, Wisconsin, Member (2016 – 2017)