

## **DENISE M. BOUDREAU, PhD, RPh, MS**

---

Senior Scientific Investigator  
Group Health Research Institute  
1730 Minor Ave, Suite 1600  
Seattle, WA 98101  
tel. 206-448-6888  
[boudreau.d@ghc.org](mailto:boudreau.d@ghc.org)

Associate Professor (Affiliate)  
Depts of Pharmacy & Epidemiology  
1959 NE Pacific Ave NE, Room H-375Q  
Box 357630  
University of Washington  
Seattle, WA 98195 7630

### **EDUCATION**

1987-1992 University of Rhode Island, Kingston, Rhode Island, B.S., Pharmacy  
1994-1996 University of Rhode Island, Kingston, RI, M.S., Pharmacy Administration  
1998-2002 University of Washington, Seattle, Washington, Ph.D., Pharmaceutical Outcomes Research and Policy

### **PROFESSIONAL POSITIONS**

2014 – present Senior Scientific Investigator, Group Health Research Institute, Seattle, WA  
2004 – present Associate Professor (affiliate), Pharmaceutical Outcomes Research and Policy Program, Department of Pharmacy, University of Washington, Seattle, WA  
2013 – present Associate Professor (affiliate), School of Public Health, Department of Epidemiology, University of Washington, Seattle, WA  
2010 – 2014 Associate Scientific Investigator, Group Health Research Institute, Seattle, WA  
2004-2010 Assistant Scientific Investigator, Group Health Research Institute (formerly Center for Health Studies), Seattle, WA  
2008 - 2009 Senior Epidemiologist, Center for Epidemiology and Database Analytics, United BioSource Corporation, Seattle, WA  
2003 - 2004 Research Associate, Group Health Research Institute (formerly Center for Health Studies), Seattle, WA  
2000 - 2002 Research Assistant, Public Health Sciences, Fred Hutchinson Cancer Research Center, Seattle, WA  
1998 - 2002 Research Assistant, Department of Pharmacy, University of Washington, Seattle, WA  
1997 - 1998 Pharmacist, Rite Aid Pharmacy, Bothell, WA  
1996 - 1996 Clinical Pharmacist, ProMark, Peacedale, RI  
1994 - 1996 Research Associate, Kay Rem Associates, Peacedale, RI  
1992 - 1996 Pharmacist, Douglas Maxi Drug, Providence, RI

### **TEACHING AND MENTORING**

#### Teaching

2008-present Instructor, Pharmacoepidemiology, Epi/Pharm 533, University of Washington, Seattle  
Spring 2013 Instructor, Middle East Training in Health Economics and Outcomes Research, University of Washington, Dubai, UAE  
2004-present Lecturer, Quantitative Methods, Pharmacy 500, University of Washington, Seattle, Washington  
2005 & 2008 Instructor, Pharmaceutical Outcomes Seminar, Pharmacy 547, University of Washington, Seattle, Washington

- 1998-1999 Teaching Assistant, Pharmaceutical Care Systems & Pharmacy Law, University of Washington, Seattle, Washington
- 1995-1996 Externship Coordinator, Pharmacy Practice, University of Rhode Island, Kingston, Rhode Island

#### Graduate Committees

- 2012-present Rebecca Drieling: Doctoral dissertation on “Characteristics of bisphosphonate users, variations in bisphosphonate effectiveness on osteoporotic fracture, and validity of self-reported medication data in post-menopausal women.” Department of Epidemiology, University of Washington.
- 2014-pres Lu Chen: Doctoral dissertation on “Hypertension and diabetes treatment and risk of adverse outcomes among breast cancer patients.” Department of Epidemiology, University of Washington.
- 2011-2014 Greg Calip: Doctoral dissertation on “The association between cardiometabolic factors and breast cancer outcomes.” (dissertation chair). Department of Epidemiology, University of Washington.
- 2008-2011 Yvonne Lin: Masters thesis on “Atomoxetine treatment on growth in children with attention deficit/hyperactivity disorder.” Department of Epidemiology, University of Washington.
- 2010-2012 Heidi Wirtz: Doctoral dissertation on “Frequent antibiotic use and breast cancer recurrence.” (dissertation chair). Department of Pharmacy, University of Washington.
- 2010-2012 Josh Roth: Doctoral dissertation on: “Evaluation of Opportunities to Optimize Medical Care with Pharmacogenomic Technology: The Cases of Warfarin Pharmacogenomics, ERCC1 Testing in Non-Small Cell Lung Cancer, and Gene Expression Profiling in Early Stage Breast Cancer.” Department of Pharmacy, University of Washington.
- 2009-2012 Ryan Hansen: Doctoral dissertation on: “The association between sedative hypnotic insomnia treatments and motor vehicle crashes.” Department of Pharmacy, University of Washington.
- 2005-2007 Jessica Chubak: Doctoral dissertation on “Breast cancer recurrence risk in relation to antidepressant use after diagnosis.” Department of Epidemiology, University of Washington.
- 2005-2007 Sarika Ogale: Doctoral dissertation on “Cardiovascular events and mortality outcomes associated with the use of long-acting  $\beta_2$ -agonists and inhaled corticosteroids in COPD patients.” Department of Pharmacy, University of Washington.

#### Post-Docs and Other mentees

- 2012-present Josh Roth, PhD: GHRI Post-Doctoral Fellow (Main Mentor)
- 2013-present Jason Lott, MD: HMOR Cancer Research Network Scholar
- 2011-present Karen Birmingham, PharmD: American Society of Health-System Pharmacists (ASHP) Research Education Foundation Fellow at Group Health
- 2013-2014 Heidi Wirtz PharmD, PhD: UW Post-Doctoral Fellow (Main Mentor)
- 2010-2013 Josh Carlson, PhD: AHRQ CER K-12 trainee

#### **AWARDS & HONORS**

- 2011 Best reviews, Pharmacoepidemiology and Drug Safety

2002 Pharmaceutical Research and Manufacturers of America Foundation Pre Doctoral Fellowship in Health Outcomes  
1999-2002 American Foundation for Pharmaceutical Education Fellowship Award  
1999-2000 Eli Lilly Endowed Academic Scholarship

## LICENSURE

1992- present Rhode Island State Board of Pharmacy  
1997- present Washington State Board of Pharmacy

## PROFESSIONAL ORGANIZATIONS

International Society for Pharmacoepidemiology  
International Society for Pharmacoeconomics and Outcomes Research

## PUBLICATIONS IN PEER-REVIEWED JOURNALS

1. Calip GS, Malone KE, Gralow JR, Stergachis A, Hubbard RA, **Boudreau DM\***. Metabolic syndrome and outcomes following early-stage breast cancer. *Breast Cancer Res Treat.* 2014 Oct 10. [Epub ahead of print]
2. **Boudreau DM**, Guzauskas GF, Chen E, Lalla D, Tayama D, Fagan SC, Veenstra DL. Cost-Effectiveness of Recombinant Tissue Plasminogen Activator within 3 Hours of Acute Ischemic Stroke using Current Evidence. *Stroke.* 2014, in press.
3. Wu JW, **Boudreau DM\***, Park Y, Simonds NI, Freedman AN. Commonly used medications and cancer recurrence and cancer-specific mortality: a review of the literature. *Expert Opin Drug Saf.* 2014;13:1071-99.
4. Calip GS, Hubbard RA, Stergachis A, Malone KE, Gralow JR, **Boudreau DM\***. Adherence to oral diabetes medications and glycemic control during and following breast cancer treatment. *Pharmacoepidemiol Drug Saf.* 2014. Jun 13. Epub ahead of print]
5. Raebel MA, Newcomer SR, Bayliss EA, **Boudreau DM**, DeBar L, Elliott TE, Ahmed A, Pawloski PA, Fisher D, Toh S, Donahoo WT. Chronic Opioid Use Emerging after Bariatric Surgery. *Pharmacoepidemiol Drug Saf.* 2014 Apr 14 [Epub ahead of print]
6. **Boudreau DM**, Yu O, Chubak J, Wirtz HS, Bowles EJA, Fujii M, Buist DSM. Comparative safety of cardiovascular medication use and breast cancer outcomes among women with early stage breast cancer. *Breast Cancer Res Treat.* 2014 Feb 21. [Epub ahead of print]
7. Roth JA, **Boudreau D,\*** Fujii MM, Farin FM, Rettie AE, Thummel KE, Veenstra DL. Genetic risk factors for major bleeding in long-term Warfarin patients in a community setting. *Clinical Pharmacology & Therapeutics.* 2014. Feb 6. [Epub ahead of print]
8. Wirtz HS, **Boudreau DM\***, Gralow JR, Barlow WE, Gray S, Chubak J, Yu O, Bowles EJA, Fujii M, Buist DSM. Factors associated with long-term adherence to annual surveillance mammography among breast cancer survivors. *Breast Cancer Res Treat.* 2014;143:541-50.

9. Raebel MA, Newcomer SR, Reifler LM, **Boudreau DM**, Elliott, TE, DeBar L, Ahmed A, Pawloski PA, Fisher D, Donahoo WT, Bayliss EA. Effect of bariatric surgery on chronic use of opioid medications. *JAMA*. 2013;310:1369-1376.
10. Wirtz HS, Buist DSM, Gralow JR, Barlow WE, Gray S, Chubak J, Yu O, Bowles EJA, Fujii M, **Boudreau DM\***. Frequent antibiotic use and second breast cancer events. *Cancer Epidemiol Biomarkers Prev*. 2013;22:1588-99. PMC3769442.
11. Matlock DD, Groeneveld PW, Sidney S, Shetterly S, Goodrich G, Glenn K, Xu S, Yang L, Farmer SA, Reynolds K, Cassidy-Bushrow AE, Lieu T, **Boudreau DM**, Greenlee RT, Tom J, Vupputuri S, Adams KF, Smith DH, Gunter MJ, Go AS, Magid DJ. Geographic variation in cardiovascular procedure use among Medicare fee-for-service versus Medicare Advantage beneficiaries. *JAMA*. 2013;310:155-62.
12. Lo Re V, Haynes K, Goldberg D, Forde KA, Carbonari DM, Leidl KBF, Hennessy S, Reddy KR, Pawloski PA, Daniel GW, Cheetham TC, Iyer A, Coughlin CO, Toh S, **Boudreau DM**, Cooper WO, Selvam N, Selvan MS, VanWormer JJ, Avigan M, Houstoun M, Zornberg GL, Racoosin JA, Shoaibi A. Validity of diagnostic codes to identify cases of severe acute liver injury in the U.S. Food and Drug Administration's Mini-Sentinel Distributed Database. *Pharmacoepidemiol Drug Saf*. 2013 Aug;22(8):861-72. Epub 2013 Jun 25.
13. Kulldorff M, Dashevsky I, Taliser A, Chan KA, Davis RL, Graham D, Platt R, Andrade SE, **Boudreau D**, Gunter MJ, Herrinton L, Pawloski P, Raebel MA, Roblin D, Smith D, Brown JS. Drug safety data mining with a tree-based scan statistic. *Pharmacoepidemiol Drug Saf*. 2013 May;22(5):517-23. Epub 2013 Mar 20.
14. Zhou Y, **Boudreau DM\***, Freedman AN. Trends in use of aspirin and other nonsteroidal antiinflammatory drugs in the general U.S. population. *Pharmacoepidemiol Drug Saf*. 2013. **May 30**. [Epub ahead of print]
15. Chubak J, **Boudreau DM**, Wirtz H, McKnight B, Weiss NS. Threats to the validity of non-randomized studies of post-diagnosis exposures on cancer recurrence and survival. *J Natl Cancer Inst*. 2013 Oct 2;105(19):1456-62. Epub 2013 Aug 12. PMC3787908.
16. Brown JS, Petronis KR, Bate A, Zhang F, Inna Dashevsky I, Kulldorff M, Avery TR, Davis RL, Chan KA, Andrade SE, **Boudreau D**, Gunter MJ, Herrinton L, Pawloski P, Raebel MA, Roblin D, Smith D, Reynolds R.. Drug adverse event detection in health plan data using the Gamma Poisson Shrinker and comparison to the tree-based scan statistic. *Pharmaceutics*. 2013;5:179-200. PMC3834945.
17. Spangler L, Yu O, Loggers E, **Boudreau DM**. Bone mineral density screening in patients with a history of breast cancer using aromatase inhibitors. *J Womens Health*. 2013 Feb;22:132-40. Epub 2013 Jan 30. PMC3573722.
18. Calip GS, **Boudreau DM\***, Loggers ET. Changes in adherence to statins and subsequent lipid profiles during and following breast cancer treatment. *Breast Cancer Res Treat*. 2013 Feb;138(1):225-33. Epub 2013 Jan 29. PMC3594463.
19. **Boudreau DM**, Arterburn D, Bogart A, Haneuse S, Theis MK, Westbrook E, Simon G. Influence of body mass index on the choice of therapy for depression and follow-up care. *Obesity*. 2013 Mar;21(3):E303-13. PMC3630271.

20. **Boudreau DM**, Yu O, Spangler L, Do TP, Fujii M, Ott SM, Critchlow CW, Scholes D. Accuracy of ICD-9 codes to identify nonunion and malunion & developing algorithms to improve case-finding of nonunion and malunion. *Bone*. 2013 Feb;**52**(2):596-601. Epub 2012 Nov 19.
21. Cutrona SL, Toh S, Iyer A, Foy S, Daniel G, Nair V, Ng D, Butler M, Nakasato C, **Boudreau D**, Andrade S, Forrow S, Goldberg R, Gore J, McManus D, Racoosin JA, Gurwitz, JH. Validation of acute myocardial infarction in the Food and Drug Administration's Mini-Sentinel program. *Pharmacoepidemiol Drug Saf*. 2013 Jan;**22**: 40-54. Epub 2012 Jun 29. PMC3601831.
22. Wong WB, VW Lin, **Boudreau DM\***, Devine EB. Statins in the prevention of dementia and Alzheimer's disease: A meta-analysis of observational studies and an assessment of confounding. *Pharmacoepidemiol Drug Saf*. 2013 Apr;**22**(4):345-358. Epub 2012 Dec 6.
23. **Boudreau DM**, Wirtz H, Von Korff M, Catz SL, St. John J, Stang PE. A survey of adult awareness and use of medicine containing acetaminophen. *Pharmacoepidemiol Drug Saf*. 2013 Mar;**22**(3):229-40. Epub 2012 Aug 13.
24. Aiello Bowles EJ, **Boudreau DM**, Chubak J, Yu O, Fujii M, Chestnut J, Buist DSM. Patient-reported side effects and discontinuation of endocrine therapy among women with early stage breast cancer. *J Oncol Pract*. 2012 Nov;**8**(6):e149-57. Epub 2012 Jul 17. PMC3500489.
25. Aiello Bowles EJ, Buist DSM, Chubak J, Yu O, Johnson J, **Boudreau DM**. Endocrine therapy initiation from 2001 through 2008 varies by age at breast cancer diagnosis and tumor size. *J Oncol Pract*. 2012 Mar;**8**(2):113-20. Epub 2012 Feb 21. PMC3457815.
26. **Boudreau DM**, Guzauskas, Villa KF, Fagan SC, Veenstra DL. A model of cost-effectiveness of tissue plasminogen activator in patient subgroups 3-4.5 hours after onset of acute ischemic stroke. *Ann Emerg Med*. 2013 Jan;**61**(1):46-55. Epub 2012 May 24. PMC3598015.
27. Guzauskas GF, **Boudreau DM\***, Villa KF, Levine SR, Veenstra DL. The cost-effectiveness of primary stroke centers for acute stroke care. *Stroke*. 2012 Jun;**43**(6):1617-23. Epub 2012 Apr 25.
28. Curtis LH, Weiner MG, **Boudreau DM**, Cooper WO, Daniel GW, Nair VP, Raebel MA, Beaulieu NU, Rosofsky R, Woodworth TS, Brown JS. Design considerations, architecture, and use of the Mini-Sentinel distributed data system. *Pharmacoepidemiol Drug Saf*. 2012 Jan;**21**(S1):23-31.
29. Habel LA, Cooper WO, Sox CM, Chan KA, Fireman BH, Arbogast PG, Cheetham TG, Quinn VP, Dublin S, **Boudreau DM**, Andrade SE, Pawloski PA, Raebel MA, Smith DH, Achacoso N, Uratsu C, Go AS, Sidney S, Nguyen-Huynh MN, Ray WA, Selby JV. ADHD medications and risk of serious cardiovascular events in young and middle-aged adults. *JAMA*. 2011 Dec 28;**306**(24):2673-83. Epub 2011 Dec 12. PMC3350308.
30. **Boudreau DM**, Yu O, Gray SL, Raebel MA, Johnson J, Larson EB. Concomitant use of cholinesterase inhibitors and anticholinergics: prevalence and outcomes. *J Am Geriatr Soc*. 2011 Nov;**59**(11):2069-76. Epub 2011 Oct 22.

31. Andrade SE, Simas TAM, **Boudreau DM**, Raebel MA, Toh S, Syat B, Dashevsky I, Platt R. Validation of algorithms to ascertain clinical conditions and medical procedures used during pregnancy. *Pharmacoepidemiol Drug Saf.* 2011 Nov;20(11):1168-76. Epub 2011 Aug 22.
32. Chubak J, **Boudreau DM**, Rulyak SJ, Mandelson MT. Colorectal cancer risk in relation to antidepressant medication use. *Int J Cancer.* 2011 Jan 1;128:227-32. PMC2962879.
33. Campbell CI, Weisner CM, LeResche L, Ray GT, Saunders K, Sullivan MD, Banta-Green C, Merrill JO, Silverberg MJ, **Boudreau D**, Satre DD, Von Korff M. Age and sex trends in long-term opioid analgesic use for noncancer pain. *Am J Public Health.* 2010;100:2541-7. PMC2978198.
34. Chubak J, **Boudreau DM**, Fishman PA, Elmore JG. Cost of breast-related care in the year following false positive screening mammograms. *Med Care.* 2010;48:815-20. PMC3079487.
35. **Boudreau DM**, Yu O, Johnson J. Statin use and cancer risk: a comprehensive review. *Expert Opin Drug Saf.* 2010;603-21. PMC2910322.
36. Ogale SS, Lee TA, Au DH, **Boudreau DM\***, Sullivan SD. Cardiovascular events associated with ipratropium bromide in COPD. *Chest.* 2010 Jan;137(1):13-19. Epub 2009 Apr 10.
37. **Boudreau DM**, Von Korff M, Rutter CM, Saunders K, Ray GT, Sullivan MD, Campbell C, Merrill JO, Silverberg MJ, Banta-Green C, Weisner C. Trends in long-term opioid therapy for chronic non-cancer pain. *Pharmacoepidemiol Drug Saf.* 2009 Dec;18(12):1166-75. PMC3280087.
38. Malone DC, **Boudreau DM**, Nichols GA, Raebel MA, Fishman PE, Feldstein AC, Boscoe A, Ben-Joseph RH, Okamoto LJ, Magid DJ. Association of cardiometabolic risk factors and cardiovascular events. *Metab Syndr Relat Disord.* 2009 Dec;7(6):585-594.
39. Weisner CM, Campbell CI, Ray GT, Saunders K, Merrill JO, Banta-Green C, Sullivan MD, Silverberg MJ, Mertens JR, **Boudreau D**, Von Korff M. Trends in prescribed opioid therapy for non-cancer pain for individuals with prior substance use disorders. *Pain.* 2009 Oct;145(3):287-93. PMC2929845.
40. Banta-Green C, Merrill J, Doyle S, **Boudreau DM**, Calsyn DA. Opioid use behaviors, mental health and pain--development of a typology of chronic pain patients. *Drug Alcohol Depend.* 2009 Sep 1;104(1-2):34-42. PMC2716214.
41. Banta-Green C, Merrill J, Doyle S, **Boudreau DM**, Calsyn DA. Measurement of opioid problems among chronic pain patients in a general medical population. *Drug Alcohol Depend.* 2009 Sep;104(1-2):43-9. PMC2716215.
42. **Boudreau DM**, Malone DC, Raebel MA, Fishman PA, Nichols GA, Feldstein AC, Boscoe AN, Ben-Joseph RH, Magid DJ, Okamoto LJ. Health care utilization and costs by metabolic syndrome risk factors. *Metab Syndr Relat Disord.* 2009 Aug;7(4): 305-14.
43. Mazor KM, Sabin JE, Goff, SL, Smith DH, Rolnick S, Roblin, D, Raebel MA, Herrinton LJ, Gurwitz JH, **Boudreau DM**, Meterko V, Dodd KS, Platt R.. Cluster randomized trials to study the comparative effectiveness of therapeutics: stakeholders' concerns and recommendations. *Pharmacoepidemiol Drug Saf.* 2009 Jul;18:554-61.

44. Chubak J, **Boudreau DM**, Rulyak S, Mandelson M. Colorectal cancer risk in relation to use of acid suppressive medications. *Pharmacoepidemiol Drug Saf* 2009;18:540-4.
45. Brown JS, Kulldorff M, Petronis KR, Reynolds R, Chan KA, Davis RL, Graham D, Andrade SE, Raebel MA, Herrinton L, Roblin D, **Boudreau D**, Smith D, Gurwitz JH, Gunter MJ, Platt R. Early adverse drug event signal detection within population-based health networks using sequential methods: key methodologic considerations. *Pharmacoepidemiol Drug Saf*. 2009 Mar;18(3):226-34.
46. Andrade SE, McPhillips H, Loren D, Raebel MA, Lane K, Livingston J, **Boudreau D**, Smith DH, Davis RL, Willy ME, Platt R. Antidepressant medication use and risk of persistent pulmonary hypertension of the newborn. *Pharmacoepidemiol Drug Saf*. 2009 Mar;18(3):246-52.
47. Yu Onchee, **Boudreau DM**, Buist DSM, Miglioretti DL. Statin use and female reproductive organ cancer risk in a large population-based setting. *Cancer Causes Control* . 2009 Jul;20(5):609-16. Epub 2008 Nov 30. PMC3041638.
48. **Boudreau DM**, Koehler E, Rulyak SJ, Haneuse S, Harrison R, Mandelson MT. Cardiovascular medication use and risk of colorectal cancer? *Cancer Epidemiol Biomarkers Prev*. 2008 Nov;17(11):3076-80. Epub 2008 Oct 28. PMC2675612.
49. Bonomi AE, **Boudreau DM**, Fishman PA, Mohelnitzky MA, Ludman E, Cannon EA, Seger D. Quality of life valuations of mammography screening. *Qual Life Res*. 2008 Jun;17(5):801-14. Epub 2008 May 20.
50. **Boudreau DM**, Yu O, Buist DSM, Miglioretti DL. Statin use and prostate cancer risk in a large population based setting. *Cancer Causes Control*. 2008 Sep;19(17):767-774. Epub 2008 Mar 6. PMC2575006.
51. Von Korff M, Saunders K, Ray GT, **Boudreau DM**, Campbell C, Merrill, Sullivan MD, Rutter C, Silverberg M, Banta-Green C. De facto long-term episodes of opioid therapy for non-cancer pain. *Clin J Pain*. 2008 Jul-Aug;24(6):521-7. PMC3286630.
52. Goff SL, Feld A, Andrade SE, Mahoney L, Beaton SJ, **Boudreau DM**, Davis RL, Goodman M, Hartsfield CL, Platt R, Roblin D, Smith D, Yood MU, Dodd K, Gurwitz JH. Administrative data used to identify patients with irritable bowel syndrome. *J Clin Epidemiol*. 2008 Jun;61(6):617-21. Epub 2008 Mar 4.
53. Andrade SE, Raebel MA, Brown J, Lane K, Livingston J, **Boudreau D**, Rolnick SJ, Roblin D, Smith DH, Dal Pan GJ, Scott PE, Platt R. Outpatient use of cardiovascular drugs during pregnancy. *Pharmacoepidemiol Drug Saf*. 2008 Mar;17(3):240-7.
54. Chubak J, Buist DS, **Boudreau DM**, Rossing MA, Lumley T, Weiss NS. Breast cancer recurrence risk in relation to antidepressant use after diagnosis. *Breast Cancer Res Treat*. 2008 Nov;112(1):123-32. Epub 2007 Dec 6. PMC3519424.
55. Brown JS, Kulldorff M, Chan KA, Davis RL, Graham D, Pettus PT, Andrade SE, Raebel MA, Herrinton L, Roblin D, **Boudreau D**, Smith D, Gurwitz JH, Gunter MJ, Platt R. Early detection of adverse drug events within population-based health networks: application of sequential testing methods. *Pharmacoepidemiol Drug Saf*. 2007 Dec;16(12):1275-1284.

56. Mazor KM, Sabin J, **Boudreau DM**, Goodman M, Gurwitz JH, Herrinton LJ, Raebel MA, Roblin D, Smith DH, Meterko V, Platt R.. Cluster randomized trials: opportunities and barriers identified by leaders of eight health plans. *Med Care*. 2007 Oct;45(10 Suppl 2):S29-37.
57. Andrade SE, Raebel MA, Brown J, Lane K, Livingston J, **Boudreau D**, Rolnick SJ, Roblin D, Smith DH, Willy ME, Staffa JA, Platt R. Use of antidepressant medications during pregnancy: a multisite study. *Am J Obstet Gynecol*. 2008 Feb;198(2):194.e1-5. Epub 2007 Oct 1.
58. **Boudreau DM**, Luce C, Bonomi AE, Ludman EJ, Fishman PE. Concordance of population-based estimates of mammography screening. *Prev Med*. 2007 Oct;45(4):262-6. Epub 2007 Jul 17. PMC2065854.
59. **Boudreau DM**, Yu O, Miglioretti DL, Buist DM, Heckbert SR, Daling JR. Statin use and breast cancer risk in a large population-based setting. *Cancer Epidemiol Biomarkers Prev*. 2007 Mar;16(3):416-21. PMC2065858.
60. **Boudreau DM**, Rutter CM, Buist DSM. The influence of statin use on breast density. *Cancer Epidemiol Biomarkers Prev*. 2006 May;15(5):1026-9. PMC2066203.
61. **Boudreau DM**, Buist DSM, Rutter CM, Fishman, PA, Beverly KR, Taplin S. Impact of hormone therapy on false positive recall and costs among women undergoing screening mammography. *Med Care*. 2006 Jan;44:62-9.
62. Greene SM, Larson EB, **Boudreau DM**, Johnson KE, Ralston J, Reid R, Fishman P. The coordinated clinical studies network: A multidisciplinary alliance to facilitate research and improve care. *Perm J*. 2005 Fall;9(4):33-5. PMC3396093.
63. Chien C, Li CI, Heckbert SR, Malone KE, **Boudreau DM**, Daling JR. Antidepressant use and breast cancer risk. *Breast Cancer Res Treat*. 2006 Jan;95(2):131-40. Epub 2005 Dec 2.
64. **Boudreau DM**, Doescher MP, Savers BG, Jackson JE, Fishman PA. Reliability of Group Health Cooperative automated pharmacy data by drug benefit status. *Pharmacoepidemiol Drug Saf*. 2005 Dec;14:877-84.
65. Bonomi AE, **Boudreau DM**, Fishman PA, Meenan RT, Revicki D. Is a family equal to the sum of its parts? Estimating outcomes at the level of the family for decision analysis. *Qual Life Res*. 2005 May;14(4):1127-33.
66. Bonomi AE, Fishman PA, **Boudreau DM**, Mennan RT, Revicki D. Family-level cost-effectiveness analysis: How muddy is the water? (letter). *Qual Life Res*. 2005 May;14(4):1139-40.
67. **Boudreau DM**, Doescher MP, Saver BG, Jackson JE, Fishman PA. Impact of healthcare delivery system on where HMO-enrolled seniors purchase medications. *Ann Pharmacother*. 2004 Jul-Aug;38(7-8):1317-8. Epub 2004 May 18.
68. **Boudreau DM**, Gardner JS, Malone KE, Heckbert SR, Blough DK, Daling JR.. The association between 3-hydroxy-3-methylglutaryl coenzyme A inhibitor use and breast carcinoma risk among postmenopausal women: a case-control study. *Cancer*. 2004 Jun 1;100(11):2308-16.



69. **Boudreau DM**, Daling JR, Malone KE, Gardner JS, Blough DK, Heckbert SR. A validation study of patient interview data and pharmacy records for antihypertensive, statin, and antidepressant medication use among older women. *Am J Epidemiol.* 2004 Feb 1;159(3):308-17.
70. Capoccia KL, **Boudreau DM**, Blough DK, Ellsworth A, Clark DL, Stevens NG, Katon WJ, Sullivan SD. A randomized trial of pharmacist intervention to improve depression care and outcomes in primary care. *Am J Health Syst Pharm.* 2004;61:364-372.
71. Li CI, Malone KE, Weiss NS, **Boudreau DM**, Cushing-Haugen KL, Daling JR. Relation between use of antihypertensive medications and risk of breast carcinoma among women ages 65-79 years. *Cancer.* 2003 Oct 1;98(7):1504-13.
72. **Boudreau DM**, Leveille SG, Gray S, Black D, LaCroix AZ, Guralnik JM. Risks for frequent antimicrobial-treated infections in postmenopausal women. *Aging Clin Exp Res.* 2003 Feb;15(1):12-18.
73. **Boudreau DM**, Capoccia KL, Sullivan SD, Blough DK, Ellsworth A, Clark DL, Katon WJ, Walker EA, Stevens NG. Collaborative care model to improve outcomes in major depression. *Ann Pharmacother.* 2002;36:585-591.
74. Chaiyakunapruk N, **Boudreau DM**, Ramsey S. Pharmacoeconomic impact of HMG-CoA reductase inhibitors in type 2 diabetes. *J Cardiovasc Risk.* 2001 Jun;8(3):127-32.
75. Mosher BA, Cuddigan J, Thomas DR, **Boudreau DM**. Outcomes of 4 methods of debridement, using a decision analysis methodology. *Advances in Wound Care.* 1999 Mar;12:81-8.

\*Students, post-docs, or fellows advised by Dr. Boudreau

#### EDITORIALS AND LETTERS TO THE EDITOR

1. Chubak J, Yu O, Buist DSM, Wirtz HS, **Boudreau DM**. Re: "Time Scales in Epidemiologic Follow-up Studies: Extending Considerations to Studies of Disease Prognosis" (letter). *Epidemiology.* 2013;24:628-9.
2. Voigt LF, **Boudreau DM**, Weiss NS, Malone KE, Li CI, Daling JR. Re: "Studies with low response proportions may be less biased than studies with high response proportions" (letter). *Am J Epidemiol* 2005;161:401-402.

#### MANUSCRIPTS UNDER REVIEW

1. Calip GS, Yu O, Hoskins KF, **Boudreau DM\***. Diabetes and Diabetes Medication Use with Risk of Second Breast Cancer Events and Mortality. Under review at *Cancer Epidemiol Biomarkers Prev.*
2. Roth JA, Bradley K, Thummel KE, Veenstra DL, **Boudreau DM\***. Alcohol misuse, genetics, and major bleeding among warfarin therapy patients in a community setting. Under review at *Pharmacoevidemiol Drug Saf.*
3. Toh S, Baker MA, Brown JS, Beaulieu N, Robb M, **Boudreau DM**, Cooper WO, Elmore R, Kornegay C, McMahill-Walraven CN, Nair VP, Raebel MA, Strom BL, Wilson MD, Richard

- Platt R on behalf of the Mini-Sentinel Investigators. Rapid assessment of medical product safety using distributed population queries: The FDA's Mini-Sentinel program. Under review at *Health Affairs*.
- Smith DH, Johnson ES, **Boudreau DM**, Cassidy-Bushrow AE, Fortmann SP, Greenlee RT, Gurwitz JH, Magid DJ, McNeal CJ, Reynolds K, Steinhubl SR, Thorp M, Tom JO, Vupputuri S, VanWormer JJ, Weinstein J, Yang X, Go AS, MD, Sidney S. Comparative effectiveness of statin therapy in adults with chronic kidney disease and acute myocardial infarction. Under review at *Clinical Journal of the American Society of Nephrology*.
  - Reynolds K, Adams KF, **Boudreau DM**, Cassidy-Bushrow AE, Fortmann SP, Go AS, Goldberg RJ, Gunter MJ, Gurwitz JH, Jin R, Magid DJ, McNeal CJ, Newton KM, Novotny R, Quesenberry CP, Rosamond WD, Smith DH, Steinhubl SR, Tom JO, VanWormer JJ, Vupputuri S, Waring SC, Sidney S. Trends in Incidence of Hospitalized Acute Myocardial Infarction in the Cardiovascular Research Network (CVRN), 2000-2008. Under review at *JAMA*.
  - Haneuse S, Bogart A, Westbrook EO, **Boudreau D**, Theis MK, Simon GE, Arterburn D. A survey-based strategy for investigating selection bias due to incomplete data in electronic health records-based research. Under review at *Epidemiology*.

## BOOK CHAPTERS

Andrade SE, Raebel MA, **Boudreau D**, Davis RL, Haffenreffer K, Pawloski PA, Toh S, Platt R. HMO organizations/health plans. In: Strom BL, Kimmel SE, Hennessy S, editors. *Pharmacoepidemiology*. 5<sup>th</sup> ed. Oxford, UK. Wiley-Blackwell; 2012. p. 163-88.

Stergachis A, Hazlet TK, **Boudreau D**. *Pharmacoepidemiology*. In: DiPiro JT, Talbert RT, Yee GC, Matzke GR, Wells BG, Posey LM, editors. *Pharmacotherapy: a pathophysiologic approach*. 6<sup>th</sup> ed. New York: McGraw Hill; 2005. p. 46-55.

## SELECTED PRESENTATIONS

**Boudreau DM**, Yu O, Chubak J, Bowles-Aiello E, Wirtz HS, Fujii M, Buist DSM. Breast cancer outcomes by diabetes status and diabetes medication use. Society for Epidemiologic Research. Seattle, WA. June 2014 (oral).

Carlson JJ, Watanabe JH, **Boudreau DM\***. Cost impact of Oncotype Dx<sup>®</sup> breast cancer assay use in a fully integrated healthcare delivery system. San Antonio Breast Cancer Symposium. San Antonio, TX, December 2013 (oral).

**Boudreau DM**, Yu O, Chubak J, Wirtz HS, Bowles EJA, Fujii M, Buist DSM. Comparative safety of cardiovascular medication use and breast cancer outcomes. The International Conference on Pharmacoepidemiology and Therapeutic Risk Management: Montreal, Canada, August 2013 (oral).

Calip GS, **Boudreau DM\***. Adherence to Oral Diabetes Medications and Glycemic Control During and Following Breast Cancer Treatment. The International Conference on Pharmacoepidemiology and Therapeutic Risk Management: Montreal, Canada, August 2013 (oral).

Wirtz HS, Buist DSM, Gralow JR, Barlow WE, Gray S, Chubak J, Yu O, Bowles EJA, Fujii M, **Boudreau DM\***. Frequent Antibiotic Use and Second Breast Cancer Events. The International

Conference on Pharmacoepidemiology and Therapeutic Risk Management: Montreal, Canada, August 2013 (poster).

Zhou Y, **Boudreau DM\***, Freedman AN. Trends in Use of Aspirin and Other Nonsteroidal Antiinflammatory Drugs in the General U.S. Population. The International Conference on Pharmacoepidemiology and Therapeutic Risk Management: Montreal, Canada, August 2013. (poster).

Roth JA, **Boudreau DM\***, Thummel KE, Veenstra DL. The Association between Obesity and Major Bleeding Risk in Warfarin Users in a Community Setting. The International Conference on Pharmacoepidemiology and Therapeutic Risk Management: Montreal, Canada, August 2013 (poster).

**Boudreau DM**, Arterburn D, Bogart A, Haneuse S, Theis MK, Westbrook E, Simon G. Influence of body mass index on the choice of therapy for depression and follow-up care. The International Conference on Pharmacoepidemiology and Therapeutic Risk Management: Barcelona, Spain, August 2012. *Pharmacoepidemiol Drug Saf.* 2012; 21 (Suppl. 3): 435 (poster)

**Boudreau DM**, Wirtz H, Von Korff M, Catz SL, St. John J, Stang PE. A survey of patient awareness and use of medicine containing acetaminophen. The International Conference on Pharmacoepidemiology and Therapeutic Risk Management: Barcelona, Spain, August 2012. *Pharmacoepidemiol Drug Saf.* 2012; 21 (Suppl. 3): 418 (poster).

**Boudreau DM**, Yu O, Spangler L, Do TP, Fujii M, Ott SM, Critchlow CW, Scholes D. Accuracy of ICD-9 codes to identify malunion and nonunion & developing an algorithm to improve automated case-finding of nonunion and malunion. American Society for Bone and Mineral Research: San Diego, CA, September 2011 (poster).

**Boudreau DM**, Yu O, Gray SL, Raebel MA, Johnson J, Larson EB. Concomitant use of cholinesterase inhibitors and anticholinergics: prevalence and outcomes. The International Conference on Pharmacoepidemiology and Therapeutic Risk Management: Chicago, IL, August 2011. *Pharmacoepidemiol Drug Saf.* 2011; 20: S83 (oral).

**Boudreau DM**, Key D, Chubak J. Comparison of different methods for calculating medication exposure. The International Conference on Pharmacoepidemiology and Therapeutic Risk Management: Chicago, IL, August 2011. *Pharmacoepidemiol Drug Saf.* 2011; 20: S309 (poster).

Brown JS, Petronis K, Bate A, Zhang F, Dashevsky I, Kulldorff M, Avery TR, Davis RL, Andrade SE, Dublin S, **Boudreau DM**, Herrinton L, Pawloski P, Raebel MA, Roblin D, Smith D, Platt R, Reynolds R. Comparing two methods for detecting adverse event signals in observational data: empirical bayes gamma poisson shrinker vs. tree-based scan Statistic. The 27th International Conference on Pharmacoepidemiology and Therapeutic Risk Management: The International Society for Pharmacoepidemiology: Chicago, IL, August 2011.

**Boudreau DM**, Nichols GA, Swain BE, O'Connor PJ, Raebel MA, Nakasato C, Newton KM, Selby JV. Early initiation of Metformin in new-onset type 2 diabetes. The International Conference on Pharmacoepidemiology and Therapeutic Risk Management: San Diego, CA, June 2011 (poster).

Davis RL, Andrade S, Rubanowice D, McPhillips H, **Boudreau D**, Raebel MA, Smith D, Ulcickas-Yood M, Lane K, Varghese R, Platt R. Risks to the newborn associated with in-utero exposure to beta-blockers and calcium-channel blockers. *Clinical Medicine & Research*: 2010;8(1):57 (Abstract C-A4-03).

**Boudreau DM**, Johnson E. Methods and limitations of observational data for coverage and reimbursement, Galaxo SmithKline Field Based Training Program. University of Washington. Seattle, WA. June 2009.

**Boudreau DM**, Barber B. Operationalizing oncology therapeutics: a satellite approach. Amgen, Thousand Oaks, CA. May 2009.

**Boudreau DM**, Sirjani, E, Lenderking WR. Global health economics value evidence generation plan for non-small cell lung cancer. Amgen, Thousand Oaks, CA. January 2009.

**Boudreau DM**, Caro JJ. Cost-utility analysis of bapineuzumab for Alzheimers disease. Elan Pharmaceuticals, South San Francisco, CA. February 2009.

Malone DC, **Boudreau DM**, Nichols GA, Raebel MA, Fishman PE, Feldstein AC, Boscoe A, Ben-Joseph RH, Okamoto LJ, Magid DJ. Association of cardiometabolic risk factors and prevalent cardiovascular events. International Society of Pharmaceutical Outcomes Research: Orlando, FL. May 2009.

Chubak J, **Boudreau D**, Rulyak S, Mandelson M. Colorectal cancer risk in relation to antidepressant use. American Society of Preventive Oncology: Tampa, FL. March 2009. Award for Highest Scoring Abstracts.

Banta-Green C, Merrill J, Doyle S, **Boudreau D**, Donald Calsyn D. Opioid misuse, abuse, and dependence: prevalence, measurement and factor structure among chronic pain patients & a new typology incorporating mental health and pain. The College on Problems of Drug Dependence: San Juan, Puerto Rico, June 2008.

**Boudreau DM**, Malone DC, Raebel MA, Fishman PE, Nichols GA, Feldstein AC, et al. Health economic burden of cardiometabolic risk, presented at the University of Utah Pharmacotherapy Outcomes Research Center Second Western Pharmacoconomics Conference: Foundations for the Future. Salt Lake City, UT, March 2007.

Chubak J, **Boudreau DM**, Buist DSM, McKnight B, Rossing MA, Weiss NS. Approaches to reducing confounding by indication in a study of breast cancer prognosis in relation to the use of antidepressants after diagnosis. International Conference on Pharmacoepidemiology: Lisbon, Portugal, August 2006. Published in *Pharmacoepidemiol Drug Saf* 2006;15:S94.

**Boudreau DM**, Yu O, Miglioretti DL, Buist DM. Statins and breast cancer risk: Is there an association? 2006 Congress of Epidemiology: Seattle, WA, June 2006. Published in *Am. J Epidemiol.* 2006;163:256.

Fishman PA, Bonomi AE, **Boudreau DM**. Cost effectiveness analysis for behavioral medicine, presentation to the Society for Behavioral Medicine Annual Meeting: March 2006.

Fishman PA, **Boudreau DM**, Hill A, Yu O. The economic impact of managed care enrollees with Cardio-Metabolic Syndrome, presented at the American Managed Care Pharmacy Annual Meeting: Seattle, WA, April 2006.

**Boudreau DM**, Bonomi AE, Fishman PA. CEA at the family level. International Society of Pharmaceutical Outcomes Research: Florence, Italy, November 2005. Published in *Value in Health.* 2005;8:A67.

Ramsey SD, Clarke L, Donato B, Sullivan SD, Varela C, Hermans N, **Boudreau DM**. Development of a web-based survey to determine practice patterns for treatment of advanced stage breast cancer in five European countries. International Society for Pharmacoeconomics and Outcomes Research: Barcelona, Spain, November 2003.

**Boudreau DM**, Gardner JS, Malone KE, Heckbert SR, Blough DK, Daling JR. The Association between HMG-CoA Inhibitor Use and Breast Cancer Risk. International Conference on Pharmacoepidemiology: Edinburgh, Scotland, August 2002. Published in *Pharmacoepidemiol Drug Saf* 2002;11(suppl 1).

## FUNDED RESEARCH

Title: Improvements to Prospective Routine Observational Monitoring Programs Tools (PROMPT) 3 & 4: Modular Code and Documentation

Dates: 2014-2015

Agency: FDA

Role: Task order Co- Lead/Co-Investigator

Direct Costs: \$493,089

Title: Efforts to Develop the Sentinel Initiative: A Protocol-based Assessment of Selected Medications and Death

Dates: 2014-2015

Agency: FDA

Role: Task order Lead/Co-Investigator

Direct Costs: \$313,402

Title: Metformin and Breast Cancer

Dates: 2012-2014

Agency: NCI

Role: Principal Investigator

Direct Costs: \$102,339

Title: FDA Sentinel-Infrastructure and 4 Task Orders

Dates: 2013-2014

Agency: Food and Drug Administration

Role: Co-Investigator

Direct Costs: \$520,651

Title: Commonly Used Medication and Risk of Colorectal Cancer Recurrence

Dates: 2013-2014

Agency: NCI

Role: Co-Investigator

Direct Costs: \$1,657,293

Title: A Survey of Adult Awareness and Reasons for Lack of Post-Fracture Osteoporotic Care

Dates: 2013-2014

Agency: Amgen

Role: Principal Investigator

Direct Costs: \$155,347

Title: Non-Receipt of Care Following an Osteoporotic Fracture: Patterns and Predictors

Dates: 2013-2014  
Agency: Amgen  
Role: Co-Investigator  
Direct Costs: \$155,347

Title: Statins and Lymphoma Malignancy Risk in a Large Multi-Site Population Based Cohort.  
Dates: 2010-2014  
Agency: NCI  
Role: Co-Investigator  
Direct Costs: \$170,195

Title: Pharmacogenetics in Rural and Underserved Populations  
Dates: 2010-2015  
Agency: NIGMS  
Role: Co-Investigator  
Direct Costs: \$259,917

Title: Dementia Patient Therapy  
Dates: 2012-2014  
Agency: Group Health Partnership for Innovation  
Role: Co-Investigator  
Direct Costs: \$84,699

## **PREVIOUSLY FUNDED RESEARCH**

Title: FDA Sentinel-Infrastructure and 5 Task Orders  
Dates: 2009-2013  
Agency: Food and Drug Administration  
Role: Co-Investigator/Site Principal Investigator  
Direct Costs: \$342,431

Title: Efforts to Develop the Sentinel Initiative: Safety Signaling Methods for Survival Outcomes to Control for Confounding in the MSDD  
Dates: 2012-2013  
Agency: Food and Drug Administration  
Role: Co-Investigator  
Direct Costs: \$231,062

Title: Scalable Partnering Network for CER: Across Lifespan, Conditions, and Settings  
Dates: 2010-2013  
Agency: AHRQ  
Role: Co-Investigator  
Direct Costs: \$189,952

Title: Population Based Descriptive Study Characterizing Tibia Shaft Fractures  
Dates: 2011-2013  
Agency: AMGEN  
Role: Co-Investigator  
Direct Costs: \$179,754

Title: Antidepressant Treatment and Risk of Obesity

Dates: 2009-2012  
Agency: NIMH  
Role: Co-Investigator  
Direct Costs: \$750,000

Title: Cardiovascular Research Network Surveillance - ARRA  
Dates: 2009-2012  
Agency: NHLBI  
Role: Co-Investigator  
Direct Costs: \$220,968

Title: Commonly Used Medications and Breast Cancer Recurrence  
Dates: 2007-2012  
Agency: NCI  
Role: Principal Investigator  
Direct Costs: \$1,573,077

Title: Commonly Used Medications and Breast Cancer Recurrence – ARRA Supplement  
Dates: 2009-2011  
Agency: NCI  
Role: Principal Investigator  
Direct Costs: \$199,721

Title: HMO Research Network Center for Education and Research on Therapeutics (CERT) III  
Dates: 2007-2011  
Agency: AHRQ  
Role: Co-Investigator

Title: Use of APAP and Awareness around APAP Dose-Related Toxicity  
Dates: 2010-2011  
Agency: Johnson & Johnson  
Role: Principal Investigator  
Direct Costs: \$343,000

Title: The Impact of Intensive versus Usual Glucose Control and Multiple Risk Factor Intervention Approaches in Individuals with Type 2 diabetes  
Dates: 2009-2011  
Agency: AHRQ  
Role: Co-Investigator  
Direct Costs: \$139,853

Title: Identifying Malunion and Nonunion Fractures with Automated Data: Validation of Codes  
Dates: 2009- 2011  
Agency: AMGEN  
Role: Principal Investigator  
Direct Costs: \$153,297

Title: Long-term Opioid Management of Chronic Pain: Trends and Risks  
Dates: 2006-2010  
Agency: NIDA

Role: Co-Investigator  
Direct Costs: \$2,042,202

Title: Developing Validated Algorithms to Ascertain Medical Procedures Used During Pregnancy

Dates: 10/14/2009 - 9/30/2010

Agency: AHRQ

Role: Co-Investigator

Direct Costs: \$29,283

Title: HMO Research Network CERT Epidemiological Studies of the Adverse Effects of Marketed Drugs: A Multicenter, Observational Cohort Study To Assess the Cardiovascular Risks of Medications Prescribed for Attention Deficit Hyperactivity Disorder

Dates: 2007-2009

Agency: AHRQ

Role: Co-Investigator

Title: Medications and Colorectal Cancer Risk

Dates: 2004-2008

Agency: NCI

Role: Principal Investigator

Direct Costs: \$100,000

Title: Prescription Opioid Misuse in a Large HMO

Dates: 2006-2008

Agency: NIDA

Role: Co-Investigator

Direct Costs: \$275,000

Title: HMO Research Network: CERT Epidemiological Studies of the Adverse Effects of Marketed Drugs: Attention Deficit Hyperactivity Disorder (ADHD) Stimulant Drugs and Cardiovascular Outcomes

Dates: 2006-2008

Agency: Food and Drug Administration

Role: Co-Investigator

Title: HMO Research Network CERT Epidemiological Studies of the Adverse Effects of Marketed Drugs: Zetia

Dates: 2006-2008

Agency: Food and Drug Administration

Role: Co-Investigator

Title: Statins and Risk of Site-Specific Cancers

Dates: 2004-2007

Agency: NCI

Role: Principal Investigator

Direct Costs: \$100,000

Title: Re-Engineering the Clinical Research Enterprise: Feasibility of Integrating and Expanding Clinical Research Networks - The HMO Clinical Trials Research Network

Dates: 2004-2007



Agency: NHLBI  
Role: Co-Investigator  
Direct Costs: \$3,272,181

Title: HMO Research Network Center for Education and Research on Therapeutics  
(CERT) II

Dates: 2003-2007

Agency: AHRQ

Role: Co-Investigator

Title: Long Term Cost and Outcomes of Breast Cancer Screening

Dates: 2004-2007

Agency: NCI

Role: Co-Investigator

Direct Costs: \$492,000

Title: Health Economic Burden of Metabolic Syndrome

Dates: 2005-2007

Agency: United BioSource Corporation

Role: Principal Investigator

Direct Costs: \$325,133

Title: HMO Research Network CERT Epidemiological Studies of the Adverse Effects of  
Marketed Drugs: Drug Use During Pregnancy

Dates: 2006-2008

Agency: Food and Drug Administration

Role: Co-Investigator