

## EMILY ROE COX, PhD

### PUBLICATIONS

#### Book Chapters

Cox ER, Schafermeyer K. "Pharmacoeconomics" In: R. McCarthy and K. Schafermeyer (eds.) *Introduction to Health Care Delivery: A Primers for Pharmacists, 2001*

Cox ER, "Cost-Benefit Analysis" In: K Bungay, J. Paladino, L. Sanchez (eds.) *Pharmacoeconomics and Outcomes: Applications for Patient Care*. Kansas City, MO: American College of Clinical Pharmacy; 1996.

Cox ER, "Cost-of-Illness Analysis" In: K Bungay, J. Paladino, L. Sanchez (eds.) *Pharmacoeconomics and Outcomes: Applications for Patient Care*. Kansas City, MO: American College of Clinical Pharmacy; 2003.

Cox ER, "Cost-Minimization Analysis" In: K Bungay, J. Paladino, L. Sanchez (eds.) *Pharmacoeconomics and Outcomes: Applications for Patient Care*. Kansas City, MO: American College of Clinical Pharmacy; 2003.

#### Non-Peer Reviewed Publications

Cox ER, Behm A, Mager D. 2005 Generic Drug Usage Report, Express Scripts, Inc., May 2006

Cox ER, Mager D, Behm A, Miller S. 2002-2005 Trends in the Prevalence of Antidiabetic Drug Therapy in Children Age 5 Year to 19 Years. Express Scripts, Inc., April 2006.

Cox ER, Behm A, Mager D. 2004 Generic Drug Usage Report, Express Scripts, Inc., December 2005

Motheral BR, Cox ER, Mager D, Henderson R, Martinez R. Express Scripts Prescription Drug Atlas, 2001: A Study of Geographic Variation in the Use of Prescription Drugs, Express Scripts, Inc., January 2002.

Cox ER and Roe C. Prescription Use Among a Commercially Insured Senior Population, 1998, Express Scripts, Inc., May 2001.

#### Peer Reviewed Publications

Cox ER, Henderson R, Motheral BR. Health plan member experience with point-of-service prescription step therapy. *Journal of Managed Care Pharmacy*. 2004;10(4):291-298.

Motheral BR, Henderson R, Cox ER. Plan-sponsor savings and member experience with point-of-service prescription step therapy. *American Journal of Managed Care*. 2004;10:457-464.

- Cox ER, Frisse M, Behm A, Fairman KA. Over-the-Counter Pain Reliever and Aspirin Use Within a Sample of Long-term Cyclooxygenase 2 Users. *Archives of Internal Medicine*. 2004;164:1243-1246.
- Cox ER, Motheral BR, Frisse M, Behm A, Mager D, The Prescribing of COX-2s Among Those New to Therapy. *American Journal of Managed Care*. 2003; 9:735-742.
- Cox ER, Motheral BR, Mager D, Verification of a Decision Analytic Model Assumption Using Real World Practice Data: Implications for the Cost-effectiveness of COX-2s. *American Journal of Managed Care*. 2003;9:785-794.
- Cox ER, Motheral BR, Henderson, RR, Mager D, Geographic Variation in the Prevalence of Stimulant Medication Use Among Children Age 5 to 14: Results from a Commercially Insured U.S. Sample. *Pediatrics* 2003;111(2):237-243.
- Cox ER, Henderson RR. Prescription Use Behavior Among Medicare Beneficiaries with Capped Prescription Benefits. *Journal of Managed Care Pharmacy*. 2002(8)5:360-364.
- Roe CM, Heinle SM, Cox ER. Design of a 3-tier benefit and cost trend. *Drug Benefit Trends*. August 2002:21-26.
- Gardner ME, Cox E, Breeze A. Impact of Pharmacist-Conducted Patient Assessment on the Drug Regimen Review Process. *The Consultant Pharmacist*. 2001;16(1):70-77.
- Cox ER, Jernigan C, Coons SJ, Draugalis JR. Medicare Beneficiaries' Management of Capped Prescription Benefits. *Medical Care* 2001;39:296-301.
- Cox ER, Motheral BR and Fairman K. Exhaustion of Prescription Benefits and Medicare Beneficiaries' Disenrollment from Managed Care. *JAMA* 2000;284:2596-2597.
- Grizzle AJ, Olson BM, Motheral BR, Armstrong EP, Abarca J, Cox ER. Therapeutic Value: Who Decides? *Pharmaceutical Executive* 2000;20(11):84,86,88,90.
- Motheral BR, Grizzle AJ, Armstrong EP, Cox ER, Fairman K. Role of pharmacoeconomics in drug benefit decision-making: Results of a survey. *Formulary* 2000;35:412-21.
- Vogel RJ, Cox ER. Analytic Dimensions of a Prescription-Medication Benefit in Medicare. *Clinical Therapeutics* 2000;22(4):470-493.
- Cox ER and Jernigan C. Prescription Coverage Options for Medicare Beneficiaries. *Journal of Managed Care Pharmacy*. 1999;5(3):250-254.
- Grudzinski AN, Hakim Z, Cox ER, and Bootman JL. An Economic Assessment of the Relationship Between Disease Exacerbations and the Cost of Multiple Sclerosis to a Managed Care Organization. *Journal of Managed Care Pharmacy*.

- Cox ER and D. Griffis. Using Decision Analysis to Evaluate the Cost Effectiveness of GP IIb/IIIa Antagonists. Formulary, 1999;34(6):515-522.
- Cox ER and Fitzpatrick V. Perceived Utilization of Skills and Pharmacist Job Satisfaction. Journal of Health Systems Pharmacy, 1999;56:1733-1737.
- Grudzinski AN, Hakim Z, Cox ER, and Bootman JL. The Economics of Disease Severity in Multiple Sclerosis. PharmacoEconomics, 1999;15(3):229-240.
- Motheral BR and Cox ER. Managed care research at the University of Arizona College of Pharmacy. Journal of Managed Care Pharmacy, 1999;5(1):65.
- Cox ER and Coons SJ. Pharmaceuticals and Medicare Managed Care: Pharmacoeconomic Considerations. Clinical Therapeutics, 1998;20(6):1238-1239.
- M.A. Kortt, P.C. Langley and E.R. Cox. A Review of Obesity Cost-of-Illness Studies. Clinical Therapeutics, 1998;20:772-779.
- J.T. Carter, J.R. Draugalis, M.K. Slack and E.R. Cox. Algorithms for Estimating Learning Opportunity and Productivity Impact at clerkship Sites. American Journal of Pharmaceutical Education, 1998;62(3):258-265.
- D.L. Harrison, J.L. Bootman, and E.R. Cox. The Cost-Effectiveness of Consultant Pharmacists in Reducing Nursing Facility Drug-Related Morbidity and Mortality. American Journal of Health-System Pharmacy, 1998;55:1588-94.
- E.R. Cox, M. Gardner, J. Brandman. The Elderly and Managed Care: Expanding Opportunities for Pharmacists in Geriatric Care. Drug Benefit Trends, 1998;10(4):33-36,38,48.
- Cox ER, Krueger K, and Murphy JE. Pharmacy Student Involvement in Student Organizations. Journal of Pharmacy Teaching, 1998;6(3):9-18.
- Bootman JL, Harrison DL, and Cox ER. A Pharmacoeconomic Analysis of the Costs of Drug-Related Morbidity and Mortality in Long Term Care Nursing Facilities. Archives of Internal Medicine, 1997;157:2089-2096.
- Else B, Armstrong E, Cox ER. Data Sources for Pharmacoeconomic and Health Services Research: A Primer for the Pharmacist/Investigator. American Journal of Health Systems Pharmacy, 1997;54:2601-2608.
- Cox ER, Reeder CE and Cohn E. Estimation of the Internal Rate of Return to the Two Year Post-BS PharmD Degree. American Journal of Pharmaceutical Education, 1994;58:1-7.

E.R. Cox, C.M. Kozma and C.E. Reeder. Multivariate Analysis of Health Status Scores: Chronic Airway Disorders and the MOS SF-36. PharmacoEconomics, 1994;6(1):49-56.

C.M. Kozma, R.M. Schulz, W.M. Dickson, E.R. Cox, et. al. Economic Impact of Cost Containment Strategies in Third Party Programs: Part II. PharmacoEconomics, 1993;4(3):187-202.

#### Journal Supplements

B.R. Motheral, E.R. Cox, C.E. Daniels. Pharmacoeconomics and Outcomes Research: Evaluating the Studies. *Journal of Managed Care Pharmacy*. January/February 2000;6(1)

P. Penna, E. Cox, T. Joseph, L. Lehman, T. Morrow, A. Richter, J. Sowers, D. Tepper. Roundtable discussion: Part I – Epidemiologic, demographic, and treatment challenges in hypertension. *Managed Care Interface*. 2000;Suppl C:10-16.

P. Penna, E. Cox, T. Joseph, L. Lehman, T. Morrow, A. Richter, J. Sowers, D. Tepper. Roundtable discussion: Part II – Development of a pharmacoeconomic model in hypertension. *Managed Care Interface*. 2000;Suppl C:17-23.

#### Published Abstracts

Sarratt D, Cox ER. Evaluation of an educational intervention on the perception of cost-effective information relative to clinical information. 4<sup>th</sup> Annual International Meeting of International Society of PharmacEconomics and Outcomes Research, May 23-26, 1999 Crystal City, VA. Value in Health, 1999;2(3):221.

Cox ER, Okamoto LJ. The role of compliance in therapy changes among newly diagnosed diabetic patients. 4<sup>th</sup> Annual International Meeting of International Society of PharmacEconomics and Outcomes Research, May 23-26, 1999 Crystal City, VA, Value in Health, 1999;2(3):147.

Borrego ME, Draugalis JR, Slack MK, Cox, ER. Determination of the cost-effectiveness of a tuberculosis prevention program along the U.S. / Mexico border using Markov process modeling within a prevention effectiveness framework. 4<sup>th</sup> Annual International Meeting of the International Society of PharmacEconomics and Outcomes Research, May 23-26, 1999 Crystal City, VA, Value in Health, 1999;2(3):188.

Krueger KP, Cox ER, Draugalis JR, Slack MK. Assessing the predictive ability of a deterministic model and a stochastic model. 4<sup>th</sup> Annual International Meeting of the International Society of PharmacEconomics and Outcomes Research, May 23-26, 1999 Crystal City, VA, Value in Health, 1999;2(3):150.

Jernigan C, Cox ER, Coons SL, Draugalis JR. Medicare beneficiaries management of capped prescription benefits, Academy of Managed Care Pharmacy, Minneapolis, Minnesota; April 1999, Journal of Managed Care Pharmacy. 1999;5(3):191.

### Poster Presentations

Cox ER, Motheral BR, Mager D. Verification of a decision analytic model assumption using real world practice data: Implications for the cost-effectiveness of COX-2S. ISPOR 8<sup>th</sup> Annual International Meeting, Arlington, VA; May 18-21, 2003.  
(accepted but did not present)

Cox ER, Fairman K, Motheral BR. Capped Prescription Benefits and Cessation of Claim Activity in a Medicare Managed Care Plan. Academy for Health Services Research and Health Policy Annual Meeting, Atlanta, GA; June 10-12, 2001

Cox ER, Motheral BR, Wertheimer AI, Joish V. Impact of Reaching 60% of Capped Prescription Benefit on Utilization of Prescription Medication. Association of Health Services Research Annual Meeting, Los Angeles; June 25-27, 2000.

Yazdani C, Cox ER, Castro WLR. *"Quality of life measurements as predictors of change in therapy in patients with musculoskeletal disorders"*, International Society of Pharmacoeconomics and Outcomes Research, Arlington, VA, May 21-24, 2000.

Cox ER, Motheral BR, Griffis D. *"Relevance of pharmacoeconomic and health outcomes information to health care decision makers in the US"*, International Society of Pharmacoeconomics and Outcomes Research, Arlington, VA, May 21-24, 2000.

Grizzle A, Motheral BR, Garrity B, Cox ER, Armstrong E. *"A qualitative assessment of managed care decision-makers' views and use of pharmacoeconomic information"*, International Society of Pharmacoeconomics and Outcomes Research, Arlington, VA, May 21-24, 2000.

Motheral B, Grizzle A, Armstrong E, Cox ER, Bataoel J, Bennett D, Shahriar J. *"A national survey of decision-makers in managed care on their views and use of pharmacoeconomic information"*, International Society of Pharmacoeconomics and Outcomes Research, Arlington, VA, May 21-24, 2000.

Bhattacharyya SK, Langlely PC, Draugalis JR, Cox ER. Lifetime costs of treating HIV-infected patients using protease inhibitor. Annual Meeting of The Academy of Managed Care Pharmacy, Atlanta, GA; October, 1999.

Skarupski KA, Cox ER, Garner C. Subjective overall physical health (SOPH) as a predictor of hospital use. 52nd Annual Scientific Meeting of the Gerontological Society of America: November 19-23, 1999, San Francisco

Skarupski KA, Cox ER, Garner C. Depression among elderly Medicare HMO risk enrollees, American Public Health Association: November 7-11, 1999, Chicago, Illinois

Jernigan CL, Cox ER, Coons SJ, Draugalis JR. Impact of capped prescription benefits on compliance among Medicare beneficiaries, American Public Health Association: November 7-11, 1999, Chicago, Illinois (accepted as podium presentation)

Skarupski KA, Cox ER, Garner C. Comparing the health status of urban and rural community-dwelling elderly: Implications for Medicare managed care. Association of Health Services Research: June 27-29, 1999, Chicago, Illinois (accepted)

Cox ER, Skarupski KA, Garner C. Utilization and predictors of preventive health behaviors among community dwelling Medicare managed care enrollees. Association of Health Services Research: June 27-29, 1999, Chicago, Illinois (accepted)

Breeze A, Gardner M, Cox ER. Impact of Direct Patient Consultation on Drug Therapy Assessment and Recommendations for Long Term Care Patients, 33<sup>rd</sup> Annual Clinical Mid-Year Meeting, American Society of Health-System Pharmacists, Las Vegas, Nevada; December 1998.

Cox ER, Fitzpatrick V. The Relationship Between Job Satisfaction and Pharmacists' Perceived Utilization of Skills: An Assessment of Arizona Pharmacists, 33<sup>rd</sup> Annual Clinical Mid-Year Meeting, American Society of Health-System Pharmacists, Las Vegas, Nevada; December 1998.

Erstad BL, Cochran KL, Cox ER. Physicians' Adherence to Prescribing Guidelines for Stress Ulcer Prophylaxis, American College of Clinical Pharmacy Annual Meeting, Cincinnati, Ohio; November 1998.

Bhattacharyya SK, Langley PC, Draugalis JR, Cox ER. Markov chain estimation of life expectancy of HIV-infected patients: Comparison of two treatment alternatives, Third Annual International Meeting International Society for Pharmacoeconomics and Outcomes Research, Philadelphia, PA; May 1998.

## **PRESENTATIONS**

Cox ER. "Examples of Proper Research Design for Health Outcome Measurement". DoD Pharmacoeconomics & Pharmacy Benefit Conference. San Antonio, Texas, January 11-14, 2004.

Cox ER. "Supporting Client Decision Making Through Outcomes Research". 6<sup>th</sup> Annual PBM Symposium. San Diego, California, March 24-25, 2004.

Motheral BR, Cox ER. "Economic, Clinical, and Humanistic Outcomes of Step Therapy". AMCP, Montreal, Quebec, Canada, October 2003.

Cox ER. "Economic, Clinical and Humanistic Outcomes of Step Therapy". AELRx Consultants, October 21, 2003

Cox ER. "Overview of Research at Express Scripts". Mini-Outcomes Conference, New York NY, October 2, 2003

Cox ER, "Patterns of Prescription Use Among Commercially Insured Children", NICHD Colloquia – Scientific Issues in Implementing Best Pharmaceuticals for Children Act (BPCA), October 7, 2003

Cox ER, "Factors Influencing the Adoption and Utilization of Pharmaceuticals", 7<sup>th</sup> Annual Express Scripts Outcomes Conference, June 2-4, 2003.

Cox ER. "Making Prescription Drugs More Affordable: Evidence-based Pharmacy Benefit Design", AELRx. Portland, OR, May 2003.

Cox ER. "Drug Trends and Employer Tactics", Medical Associates Health Plan, Dubuque IA, April 2003.

Cox ER. "Geographic Variation/ADHD", Lilly North America, St. Louis MO, January 2003.

Cox ER, "How Do Patients Really Use PPIs and COX-2s?", Mini-Outcomes Conference, New York, NY, October 17, 2002.

Cox ER, "How Do Patients Really Use PPIs and COX-2s?", Mini-Outcomes Conference, Chicago, IL, October 21, 2002.

Cox ER, "Cox-2 Therapy: What You May Not Know", 6<sup>th</sup> Annual Express Scripts Outcomes Conference, June 3-5, 2002.

Cox ER, "Evaluating Medication Adherence Using Pharmacy Claims Data", Academy of Managed Care Pharmacy, Salt Lake City, Utah, April 5, 2002.

Cox ER, "The 2000 Express Scripts Prescription Drug Atlas: A Study of Geographic Variation in the Use of Prescription Drugs" Academy of Managed Care Pharmacy, Salt Lake City, Utah, April 5, 2002.

Cox ER, "Impact of Coverage on Prescription Drug Use Among Older Americans" PCMA 2001 Annual Membership Meeting and Conference, Las Vegas, NV, October 16, 2001.

Cox ER, "Prescription Drug Use and Older Americans: Implications for Payers and Beneficiaries" DataNiche, Lake Tahoe, NV, September 5, 2001

Cox ER, "Three-Tier Prescription Copays: What the Research Shows", Virginia Commonwealth University, Richmond, VA, April 23, 2001.

Cox ER, "Helping Seniors Maximize the Value of Their Capped Prescription Benefit", NCPDP's 24th Annual Membership Conference, February 24-28, 2001.

- Cox ER, "Prescription Utilization Patterns In Senior Populations: Implications for Out-Patient Prescription Coverage Under Medicare". 4<sup>th</sup> Annual Express Scripts Outcomes Conference, June 27, 2000.
- Cox ER, Douglas D, Eng H. "Seniors: Are We Meeting Their Health Care Needs?" Arizona Public Health Association Meeting, Mesa, AZ, May 20, 1999.
- Cox ER. "Can Pharmacy Costs be Controlled" Dallas/Ft. Worth Healthcare Collaboration Group, Irving, TX, April 15, 1999.
- Cox ER. "Pharmacoeconomics of Cardiovascular Disease Prevention and Treatment", California Society of Health-System Pharmacists, Anaheim, CA, October 24, 1998.
- Cox ER. "Pharmacoeconomic Research Design: Cost Benefit and Cost Effectiveness Analysis" College of Graduate Health Sciences, University of Tennessee, October 26, 1998.
- Cox ER. "Principles of Pharmacoeconomics" Japanese Pharmacist Seminar Introductory Program '98, June 1998.
- Cox ER. "Measuring the Value of Pharmacy Services", Texas Society of Health-System Pharmacists, Houston, TX, April 2, 1998
- Cox ER. "Developing Pharmacy Services in Non-Acute Practice Areas: Focus on Measurement and Benchmarking", ASHP Second Annual Leadership Conference on Pharmacy Practice Management, Reston, VA, October 4<sup>th</sup>, 1997,
- Cox ER. "Issues and Applications of Markov Models in Medical Decision Making", 1997 Annual Meeting of the American College of Clinical Pharmacy, Phoenix, AZ, November 12, 1997.
- Vogenberg R, Cox ER. "Managed Care Concepts" American Association of Colleges of Pharmacy, Indianapolis, IN, July 1997.
- Cox ER. "Practical Applications of Quality of Life Instruments" Indian Health Service/Veterans Affairs Southwest Regional Pharmacy Continuing Education Seminar, Phoenix, AZ, June 7<sup>th</sup>, 1997.
- Cox ER. "The Fleetwood Project Research Initiative - Phase I: A Pharmacoeconomic Analysis of Drug-Related Morbidity/Mortality in Nursing Facilities" 27<sup>th</sup> Annual Meeting and Exhibition of the American Society of Consultant Pharmacists, Nashville, TN, November 14, 1996.
- Cox ER. "Knocking on the Door of Opportunity: Getting Pharmacists into Clinics" Pediatric Technology Conference, Scottsdale, AZ, September 7, 1996.
- Cox ER. "General Disease State Management and Managed Care" Arizona Society of Health-System Pharmacists Annual Meeting, Tucson, AZ, July 20, 1996.

Murphy JE, Bradberry JC, Cox ER, Hak LJ, Krueger KP. "Role of Faculty in Stimulating Innovation and Research in Students" American Association of Colleges of Pharmacy, Reno, NV, July 17, 1996.

Cox ER. "Principles of Cost Benefit, Cost-Effectiveness and Cost-Utility Analyses" Federal Pharmacy Conference, Myrtle Beach, SC, February 1993

Cox ER. "Chronic Obstructive Airway Disorders, Quality of Life and Health Care Utilization" American Pharmaceutical Association's 140th Annual Meeting and Exposition, Dallas, TX, March 1993

Cox ER. "Principles of Cost Benefit and Cost-Effectiveness Analyses", Federal Pharmacy Conference: Myrtle Beach, SC, February 1992