# CONTACT

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**Collaboration for Outcomes Research and Evaluation (CORE)** 

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# **A DECADE OF CORE: 2005 - 2015** COLLABORATION FOR OUTCOMES RESEARCH AND EVALUATION





a place of mind THE UNIVERSITY OF BRITISH COLUMBIA

Faculty of Pharmaceutical Sciences







### **WHO WE ARE**

Housed within The University of British Columbia's Faculty of Pharmaceutical Sciences, the Collaboration for Outcomes Research and Evaluation (CORE) is an academic research group established in 2000 by Dr. David Fielding. The mission of CORE is to improve healthcare related outcomes for drug therapy through the application of the best in research, education and practice enhancement strategies. CORE strives to provide evidence which will maximize the clinical, quality of life, and economic benefits of drug therapy, while minimizing associated risks. This is achieved through independent research and global research collaborations with pharmaceutical and health outcomes researchers.

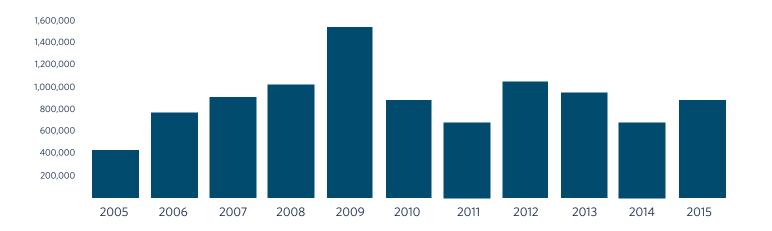
In 2004, leadership of the research group came under the direction of Dr. Carlo Marra and Dr. Larry Lynd. Through their vision for becoming leaders in evidence based evaluation to improve health related outcomes, they endeavored to develop CORE in terms of both research and training in pharmaceutical outcomes. In this regard, CORE continues to evolve and develop, as evidenced by our many accomplishments.

# **FACULTY MEMBERS**

Dr. Larry Lynd, Director and Professor
Dr. Fawziah Lalji, Professor
Dr. Mary De Vera, Assistant Professor in Medication Adherence
Dr. Mark Harrison, Assistant Professor in Sustainable Health Care
Dr. Peter Zed, Professor and Associate Dean, Practice Innovation
Dr. Peter Loewen, Assistant Professor
Dr. Mohsen Sadatsafavi, Assistant Professor

#### \$9,205,742 FUNDING

\*Total CIHR Funding Received 2004-2013: \$1,890,142.00



#### **OUR RESEARCH PRIORITIES**

Utilizing the expertise of our multidisciplinary group of researchers, we endeavor to establish an outcomes research agenda that is relevant to both policy and clinical decision-making, with research activities focusing on health economics, epidemiology, health care sustainability and adherence.

Health care resources are limited and difficult choices continue to be made regarding the best use of these resources to improve the health of Canadians. As such, economic evaluation in health care continues to be a major research focus for CORE. This research is in high demand from various sectors of the health care community to aid in the decision making process. In addition to our research specifically in health economics, we also undertake research projects in the areas of epidemiology and pharmacoepidemiology, preference elicitation, medication adherence, and pharmacy practice. Utilizing the expertise of our multidisciplinary group of researchers, and through our collaborative associations, CORE has conducted, and continues to focus on, studies on cutting edge issues to generate new knowledge that readily translates to better health outcomes for patients, and a more efficient health system. Our work continues to be published in highly ranked, peer-reviewed journals and presented at both national and international forums, while our knowledge translation and dissemination strategies with stakeholders and decision-makers continues to be a central part of our research as we strive to keep our results relevant to policy making.

In addition to specific research projects and knowledge development, CORE faculty are dedicated to the development of research capacity in health outcomes through our training and mentorship program. We have developed a training program that attracts trainees at the undergraduate, Masters, PhD, and postdoctoral levels from around the world. Graduates of our post-graduate training programs have been recruited into positions in government (Ministry of Health), industry (Pfizer Canada, Roche Asia Pacific, Broad Street Health Economics and Outcomes Research), and academia (UBC, Harvard, Maastricht, Manitoba, Cornell, Waterloo, Sao Paulo).

Through our multi-faceted collaborative research agenda, CORE researchers continue to develop and contribute to health outcomes research nationally and internationally.

#### **29** COMPLETED TRAINEES



#### **RESEARCH AREAS**

**Pharmacoepidemiology –** pharmacoepidemiological evaluations using large, population-based administrative databases to evaluate safety and effectiveness of drug therapy experienced in the 'real-world' setting.

**Orphan Drugs and Rare Diseases –** research with the objective of helping to inform the development of drug coverage decision-making models relating to government funding of drug therapy for rare diseases.

**Medication Adherence –** population based studies evaluating the burden and determinants of non-adherence in addition to developing and evaluating interventions to address this issue.

Personalized and Precision Medicine - economic evaluation of genetically-based diagnostic strategies.

**Reproductive Health and Perinatal Epidemiology –** informing the development and evaluation of interventions at the community and population level to improve sexual and reproductive health and maternal and neonatal outcomes.

**Pharmacy Practice Research –** evaluating the policies and roles of the community pharmacist in chronic disease management.

**Global Health –** evaluating health outcomes in a number of international studies aimed at improving maternal and child outcomes in Rwanda and Cambodia, and newly diagnosed HIV patients in Kenya.

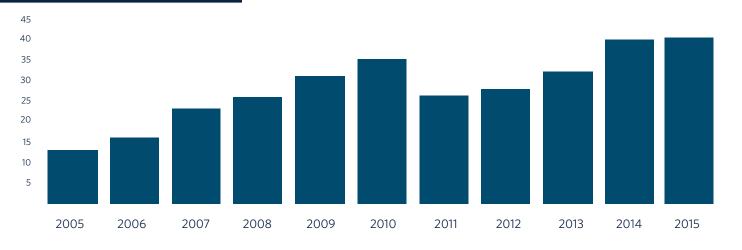
**Communicable & Infectious Diseases –** outcomes evaluation of vaccines and antimicrobials used for communicable disease control.

**Risk Benefit Analysis & Choice Modelling –** given the importance of quantitatively measuring patients' preferences, we have developed expertise in Discrete Choice (DCE), best-worst scaling experiments, and applying methods to quantitatively evaluate risks and benefits for health interventions or outcomes.

**Economic Evaluation & Disease Modeling –** cost effectiveness and cost utility analyses of public health interventions, diagnostic testing and drug therapy.

Pharmacotherapy Best Practice - in emergency medicine and patient safety, particularly adverse drug events.

#### **293** PUBLICATIONS



#### **SELECTED PUBLICATIONS**

Chen W, Lynd LD, FitzGerald JM, Marra CA, Rousseau R, Sadatsafavi M. **The added effect of comorbidity on health-related quality of life in patients with asthma.** Qual Life Res. 2015;24(10):2507-2517.

Douglas CMW, Wilcox E, Burgess M, Lynd LD. **Why orphan drug coverage reimbursement decision-making needs patient and public involvement.** Health Policy. 2015;119(5):588-596.

Sadatsafavi M, Lynd LD, De Vera MA, Zafari Z, FitzGerald JM. **One-year outcomes of inhaled controller therapies added to systemic corticosteroids after asthma-related hospital discharge.** Respir Med. 2015;109(3):320-328.

M Harrison, C Marra, K Shojania, N Bansback. **Societal preferences for rheumatoid arthritis treatments:** evidence from a discrete choice experiment. Rheumatology 54 2015 Oct;54(10):1816-25. doi: 10.1093/ rheumatology/kev113. Epub 2015 May 18 (10), 1816-1825

O'Hara NN, Roy L, O'Hara LM, Spiegel JM, Lynd LD, FitzGerald JM, Yassi A, Nophale LE, Marra CA. **Healthcare** worker preferences for active tuberculosis case finding programs in South Africa: a best-worst scaling choice experiment. PLOS ONE. July 21, 2015. doi:10.1371/journal.pone.0133304

M Harrison, S Birch, M Eden, S Ramsden, T Farragher, K Payne, G Hall, Black G. **Variation in healthcare services** for specialist genetic testing and implications for planning genetic services: the example of inherited retinal dystrophy in the English NHS. Journal of community genetics 6 (2), 157-165 2015 Apr;6(2):157-65. doi: 10.1007/s12687-014-0210-4. Epub 2015 Jan 9.

Galo JS, Mehat P, Rai SK, Avina-Zubieta A, De Vera MA. What are the Effects of Medication Adherence Interventions in Rheumatic Diseases: A Systematic Review. Annals of the Rheumatic Diseases. 2015 Feb 9. doi: 10.1136/annrheumdis-2014-206593. [Epub ahead of print] [SA; IF: 9.270]

Zed PJ, Black KJ, Fitzpatrick EA, Ackroyd-Stolarz S, Murphy NG, Curran JA, MacKinnon NJ, Sinclair D. **Medicationrelated emergency department visits in pediatrics: a prospective observational study.** Pediatrics. 2015 Mar;135(3):435-43. doi: 10.1542/peds.2014-1827. Epub 2015 Feb 2

Marra F, Kaczorowski J, Gastonguay L, Marra CA, Lynd LD, Kendall P. **Pharmacy-based immunization in rural communities strategy (PhICS): a community cluster randomized trial.** Can Pharm J 2014; 147(1):33-44.

Sadatsafavi M, FitzGerald JM, Marra CA, Lynd LD. Dispensation of long-acting beta agonists with or without

inhaled corticosteroids and risk of asthma-related hospitalisation: a population-based study. Thorax. 2014 Apr;69(4):328-34.

Campbell JR, Marra F, Cook VC, Johnston J. **Screening immigrants for latent tuberculosis: do we have the resources?** CMAJ 2014; 186(4):246-7

De Vera MA, Marcotte G, Rai S, Galo JS, Bhole V. **Medication adherence in gout: a systematic review.** Arthritis Care Res (Hoboken). 2014 Oct;66(10):1551-9. doi: 10.1002/acr.22336

Davis J, Lynd LD, Grubisic M, Kopec JA, Sayre EC, Cibere C, Esdaile J, Marra CA. **Responsiveness of health states utility values in knee osteoarthritis.** J Rheum 2013; 40 (12):2075 – 82.

Sadatsafavi M, Lynd LD, FitzGerald M. **Post-hospital syndrome in adults with asthma: a case-crossover study.** Allergy Asthma Clin Immun 2013; 9(1):49-XX.

Sweeney K, Grubisic M, Marra CA, Kendall R, Li L, Lynd LD. **Comparison of HRQL between unicompartmental knee arthroplasty and total knee arthroplasty for the treatment of osteoarthritis.** J Arthroplasty 2013; 28 (Suppl. 2): 187-190.

Sadatsafavi M, Lynd LD, Marra CA, Bedouch P, FitzGerald M. **Comparative outcomes of leukotriene receptor antagonists and long-acting beta-agonists as add-on therapy in asthma: a population-based study.** J Allerg Asthma Clin Imunol 2013; 132(1): 63-9.

Bedouch P, Marra CA, FitzGerald JM, Sadatsafavi M, Lynd LD. **Trends in asthma-related direct medical costs from 2002 to 2007 in British Columbia, Canada: A population-based cohort study.** PLoS ONE 2012; 7(12): e50949. doi:10.1371/journal.pone.0050949.

Najafzadeh M, Marra CA, Lynd LD, Wiseman SM. **Cost-effectiveness of using a molecular diagnostic test to improve pre-operative diagnosis of thyroid cancer.** Value Health. 2012 Dec;15(8):1005-1013.

Sadatsafavi M, Marra CA, Marra F, Moran O, FitzGerald JM, Lynd LD. **A quantitative benefit risk analysis if isoniazid (INH) for treatment of latent tuberculosis infection (LTBI) using incremental net-benefit framework.** Value in Health 2012; 16(1): 66-75.

Najafzadeh M, Marra CA, Lynd LD, Sadatsafavi M, FitzGerald JM, McManus B, Sin D. **Future impact of various Interventions on the burden of COPD in Canada: A dynamic population model.** PlosOne. 2012;7(10): e46746. doi:10.1371/journal.pone.0046746.

Marra CA, Lynd LD, Colley L, Harvard SS, Lacaille D, Schwenger E, Anis AH, Esdaile JM. **Risk of gastrointestinal** events in patients with rheumatoid arthritis after withdrawal of rofecoxib. J Rheumatol. 2012; 39(5): 910-915.

Najafzadeh M, Lynd LD, Davis JC, Bryan S, Anis A, Marra M, Marra CA. **Barriers to integrating personalized medicine into clinical practice: a best-worst scaling choice experiment.** Genet Med 2012; 14(5): 520-526.

Lynd LD, Marra CA, Najafzadeh M, Esdaile JM, Sadatsafavi M. **A benefit-risk analysis of rofecoxib relative to naproxen in arthritis - an application of the incremental net-benefit framework.** Pharmacoepidemiol Drug Safe 2010: 19 (11):1172 - 1180.

Marra F, Marra CA, Richardson K, Lynd LD, Kozyrskj A, Patrick DM, Bowie WR, FitzGerald JM. **Antibiotic use in children is associated with increased risk of asthma.** Pediatrics. 2009 Mar;123(3):1003-10. doi:10.1542/ peds.2008-1146. PMID: 19255032