

# CO RE

2016-17  
ANNUAL  
REPORT



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2016 | 2017 ANNUAL REPORT



Collaboration for  
Outcomes  
Research and  
Evaluation

EST. 2000

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# CORE at a Glance



## Who Are We

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. Led by Director, Larry Lynd, CORE's vision is to lead evidence-based evaluations to improve health-related outcomes locally, nationally, and internationally.

The overarching goal of our research is to improve health-related outcomes through the application of the best in research, education, and practice enhancement strategies. CORE strives to provide the best evidence to inform practice, policy, and future research aimed at improving clinical outcomes, quality of life, and economic benefits of health interventions. This is achieved through a combination of independent and collaborative multidisciplinary research programs including engagement with patients, clinicians, other researchers, policy makers, and both public and private sector stakeholders.

# Year Highlights



JOURNALS

86

PEER REVIEWED  
JOURNAL ARTICLES



COMPLETED

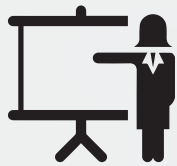
12

ACTIVE

14

TRAINEES

(Masters, PhD, and Postdoctoral Fellows supervised by CORE Faculty)



16

COURSES  
TAUGHT



AWARDED

1.3M

FUNDING

(Grants awarded to CORE Faculty as Principal Investigator/Applicant)

## Salary Awards

Canada Research Chair

Tier 2

2017 – 2022

\$500,000

De Vera MA



Canada Research Chairs

www.chairs-chaires.gc.ca

Michael Smith Foundation for

Health Services, Scholar

Award 2017 – 2022

\$450,000

Harrison M



Michael Smith Foundation  
for Health Services, Scholar

Award 2016 – 2017

\$450,000

Sadatsafavi M



Canadian Institutes of Health  
Research, New Investigator  
Award

2016 – 2021

\$300,000

Sadatsafavi M



CIHR IRSC

Canadian Institutes of Health Research

The Arthritis Society, Young  
Investigator

Award

2016 – 2019

\$180,000

Harrison M



## Recognitions and Accomplishments

Arthritis Alliance of Canada Early Career Researcher/Early Career Faculty Member Research Award, 2017. **De Vera MA**

Arthritis Research Canada Patient Advisory Board Patient Inclusion Award for outstanding contribution to patient involvement in research, 2017. **De Vera MA**

Association of Faculties of Pharmacy of Canada New Investigator Research Award, 2016 **Harrison M**

BC Journalism Award for Science, Technology, Health & Environment, Million Dollar Med\$ Rare Diseases in Canada, Jack Webster Awards. 2016. **Lynd LD**

Canadian Society for Pharmaceutical Sciences Early Career Award. 2016. **De Vera MA**

Canadian Society of Pharmaceutical Sciences New Investigator Award, New Investigator Award, 2017. **Sadatsafavi M**

Edward R. Murrow Award for Best Website (International Region), Million Dollar Med\$ Rare Diseases in Canada, Radio Television Digital News Association. 2016. **Lynd LD**

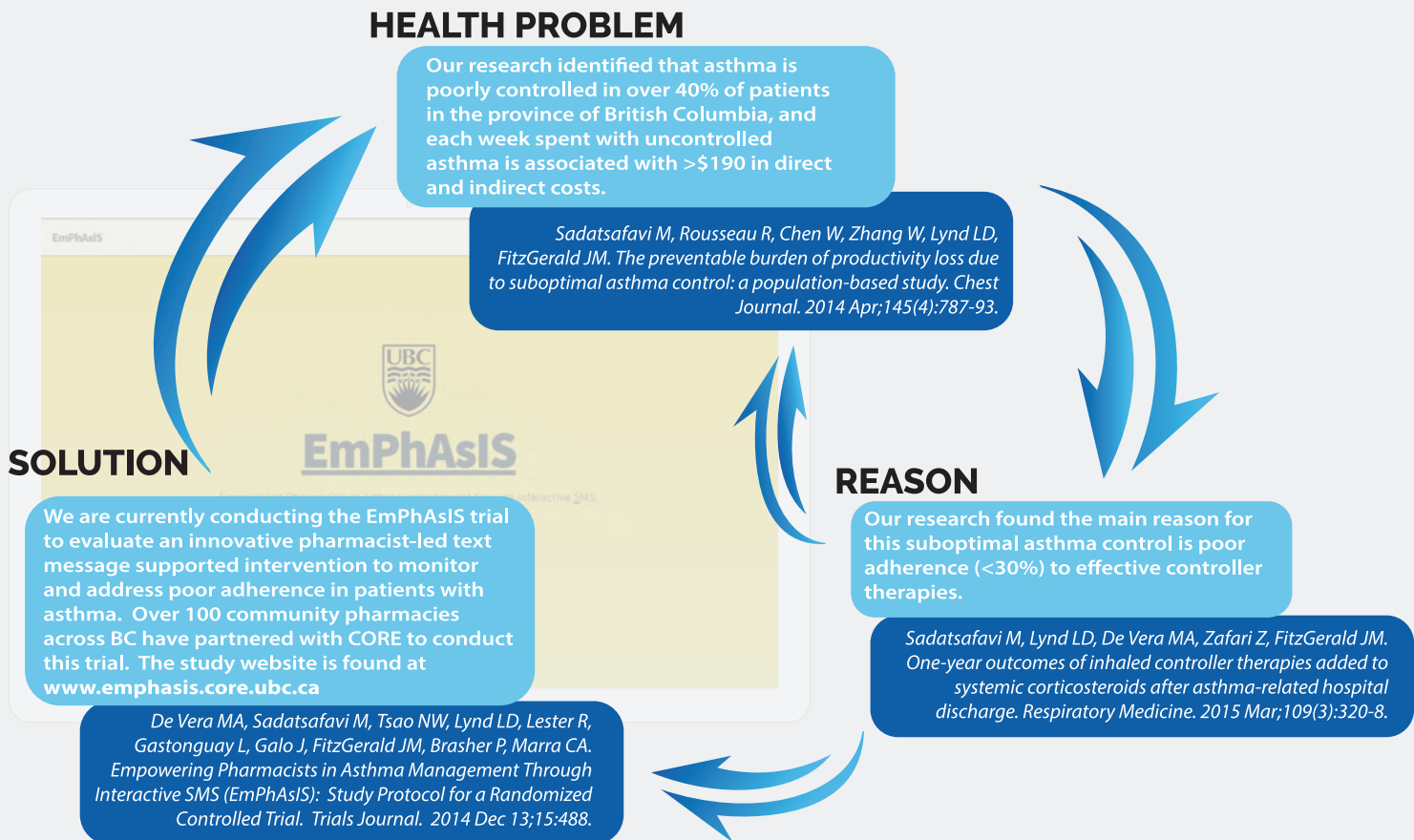
# Our Research Areas

**PHARMACY PRACTICE RESEARCH**  
**GLOBAL HEALTH**  
**HEALTH SERVICES RESEARCH**  
**HEALTH ECONOMICS**  
**EPIDEMIOLOGY/CLINICAL EVALUATION**  
**PHARMACOEPIDEMIOLOGY**  
**DISEASE MODELING**

## Our Research at Work

- Identify health problems and etiologic factors (reasons) using epidemiologic and health services research
- Evaluate health system efficiencies using state-of-the-art health economics methods
- Develop and evaluate real-world healthcare solutions

### EXAMPLE



# Funding

Grants awarded to CORE Faculty as Principal Investigator/Applicant

Source	Project Title	Total
AstraZeneca Canada	Pattern and outcomes associated with inappropriate use of short-acting beta-agonists in asthma	\$165,046
Canadian Institutes of Health Research	A population-based analysis of multi-disciplinary rheumatology nursing care for people with complex rheumatic diseases	\$271,397
Canadian Institutes of Health Research	Analyses of Existing Canadian Cohorts & Databases, Perinatal Use of Immunosuppressant Therapies and Risk of Infections in Mothers and Babies	\$74,443
Canadian Institutes of Health Research	Development, validation, and dissemination of an individualized prediction tool for acute exacerbations of chronic obstructive pulmonary disease	\$198,306
Institute for Health Transformation and Sustainability	Unlocking the Potential of Patient-Reported Outcome Measures (PROMs) to Support Health Care System Sustainability: Scoping Phase	\$26,613
Michael Smith Foundation for Health Research	Convening & Collaborating (C2) grant, Building a new partnership between the FNHA and UBC for community-based research to improve Indigenous women's heart health	\$14,980
MS Society of Canada	MS Progressive Cohort Project	\$250,000
Pfizer Canada	Changes in the incidence of IPD with S. pneumonia in British Columbia	\$109,875
The Arthritis Society	A population-based analysis of multi-disciplinary rheumatology nursing care for people with complex musculoskeletal disorders	\$74,776
Vice-President Research & Innovation, UBC Grants for Catalyzing Research Clusters Competition	Orphan Drugs and Rare Disease Policy Cluster	\$100,000

# Faculty



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# Welcome to CORE

## Biography

Joining CORE in 2017, Dr. Annalijn Conklin has a background in health policy, epidemiology and public health, life sciences, and philosophy. She is a former CIHR Postdoctoral Fellow (UCLA) and was a Gates Cambridge Scholar during her doctoral training at the Centre for Diet and Activity Research in the Medical Research Council Epidemiology Unit. She also holds degrees from the University of Toronto (Hon. B.Sc.),

University of Edinburgh (Research M.Sc.), and Columbia University in the City of New York (MPH). Dr. Conklin also worked four years as a policy analyst at RAND Europe, Cambridge, where she was the Administrative Coordinator of a European project (€3.4m) with 10 partners in seven countries on developing and validating disease management evaluation methods and metrics.

## Media Mentions

Why eating alone may be bad for you. Posted by Time Health, 9 February 2018

A varied diet CAN prevent diabetes but eating healthy is more expensive, say experts as they call for government help. Posted by the Daily Mail, 21 July 2016

Price gap between 'healthy' and 'unhealthy' foods is growing wider. Posted by William Reed Business Media Market Trends, 9 October 2014

“ My mission is to improve the prevention and treatment of nutrition-related outcomes using novel approaches to examine and address the broader social determinants of health. ” - Dr. Annalijn Conklin

## Research

Dr. Conklin's research program aims to improve the design and evaluation of complex interventions to prevent and manage chronic conditions. Her recent projects use novel approaches to examine social-level factors, and their interactions, as determinants of nutrition-related behaviours and outcomes, with a focus on gender-specific effects. Her dissertation examined the

relative contribution and interactions of socioeconomic status, financial hardships and social ties in determining healthy eating and weight status. Dr. Conklin's wide research portfolio includes cross-cutting public health topics such as patient safety, human rights, and the gender dimensions of trade and health. She has over 60 peer-reviewed publications, and nearly 850 citations.

# Graduate and Post Graduate Trainees

## COMPLETED

Daphne Ling  
Rachel Magarinos-Torres  
Shahzad Ghanbarian

## ACTIVE

Postdoctoral  
Fellows



Adam Raymakers  
Anik Patel  
Wenjia Chen  
Zafar Zafari

Celestin Hategakimana  
Jonathon Campbell  
Kate Johnson  
Mohammad Atiquzzaman  
Natalie McCormick  
Nelson Gorrin  
Nicole Tsao  
Nirma Vadlamudi  
Rebecca Metcalfe

PhD  
Students



Alyssa Howren  
Kirby Smith  
Luke Spooner  
Pardis Lakzadeh  
Pavan Mehat

Ariana Saatchi  
James Hicklin  
Khalid Saadeldin  
Ross Duncan  
Shahzad Salmasi

Masters  
Students



# Clinical Trainees & Undergraduate Students

Alex Sykelyk  
Anna Yee  
Jason Tan  
Joan Ng  
Kyle Collins  
Leanne Leung

Marco Yeung  
Marleys LeBras  
Renee Dagenais  
Stacey Tkachuk  
Timothy Lim

PharmD  
Students/  
Residents



Alanna Janz  
Alexander Tam  
Anna Chen  
Bill Huang  
Ellen Kim  
Enavzipora Zusman  
Grace Greenwood  
Hans Haag  
Jamie Park  
Jenny Li

Jeremy Ruckenstein  
Jessica Manning  
Jia Min Dong  
Jia Yi Li  
Joshua Quisias  
Jovan Gill  
Joy Que  
Lester Lin  
Lilly Lin  
Madelaine Bell

Michelle Chau Le  
Michelle Pak  
Nehmat Pawar  
Ravinder Jammu  
Robin Lee  
Tim Leung  
Tim Liang  
Xiaoran Guo  
Yolanda Lin

Undergraduate<sup>\*</sup>  
Students



*\*Undergraduate students include: Summer Students, Directed Studies, and Research Assistants Supervised*

# Publications

## A

Amiri N, **De Vera MA**, Choi HK, Sayre EC, Avina-Zubieta JA. Increased Risk of Cardiovascular Disease in Giant Cell Arteritis: A General Population-Based Study. *Rheumatology*. 2016 Jan;55(1):33-40.

Aviña-Zubieta JA, To F, Vostretsova K, **De Vera MA**, Sayre EC, Esdaile JM. Risk of myocardial infarction and stroke in newly diagnosed systemic lupus erythematosus: a general population-based study. *Arthritis Care Res (Hoboken)*. 2017 Jun;69(6):849-856.

## B

Bansback N, Bell M, Spooner L, Pompeo A, Han PKH, **Harrison M**. Communicating uncertainty in benefits and harms: A review of patient decision support interventions. *Patient*. 2017 Jun;10(3):311-319.

Bansback N, **Harrison M**, Marra C. Does introducing imprecision around probabilities for benefit and harm influence the way people value treatments? *Med Decis Making*. 2016 May;36(4):490-502.

Bansback N, **Harrison M**, Whitehurst DGT, **Sadatsafavi M**, Stiggelbout A. Attitude to health risk in the Canadian Population: evidence from a nationwide cross-sectional survey. *CMAJ OPEN*. 2016 4(2):E284-91.

Belhassen M, Langlois C, Laforest L, Dima AL, Ginoux M, **Sadatsafavi M**, Van Ganse E. Level of Asthma Controller Therapy Before Admission to the Hospital. *J Allergy Clin Immunol Pract*. 2016 Sep-Oct;4(5):877-83.

Buchan SA, Rosella LC, Finkelstein M, Juurlink D, Isenor J, **Marra F**, Patel A, Russell ML, Quach S, Waite N, Kwong JC. Impact of pharmacist administration of influenza vaccines on uptake in Canada. *CMAJ*. 2017 Jan 30;189(4):E146-E152.

## C

Campbell JR, Johnston JC, **Sadatsafavi M**, Cook VJ, Elwood RK, **Marra F**. Cost-effectiveness of post-landing latent tuberculosis infection control strategies in new migrants to Canada. *PLoS One*. 2017 Oct 30;12(10):e0186778.

Campbell JR, Krot J, **Marra F**. Latent tuberculosis diagnostic tests to predict longitudinal tuberculosis during dialysis: A meta-analysis. *Int J Tuberc Lung Dis*. 2016 Jun;20(6):764-70.

Campbell NKJ, Saadeldin K, **De Vera MA**. The duality of economic issues with medication non-adherence in patients with inflammatory arthritis.

*Curr Rheumatol Rep*. 2017 Sep 18;19(10):66.

Chen W, Din DD, FitzGerald JM, **Sadatsafavi M**. Excess Economic Burden of Comorbidities in COPD: a 15-year population-based study *European Respiratory Journal*. *Eur Respir J*. 2017 Jul 27;50(1).

Chen W, Larry LD, Marra CA, FitzGerald JM, Balshaw R, To T, **Sadatsafavi M**. Excess medical costs in patients with asthma and the role of comorbidity. *Eur Respir J*. 2016 Dec;48(6):1584-1592.

Chen W, **Lynd LD**, FitzGerald JM, **Sadatsafavi M**. Influences of socioeconomic status on costs of asthma under universal health coverage. *Med Care*. 2016 Aug;54(8):789-95.

Ciprandi G, Tosca MA, Cirillo I, Gallo F, Ricciardolo FL, **Sadatsafavi M**, Mark FitzGerald J. The asthma control in daily practice. *Allergy*. 2016 Jun;71(6):907-9.

Conklin AI, Monsivais P, Wareham NJ, Forouhi NG. Dietary diversity, diet cost and incidence of type 2 diabetes in the United Kingdom: a prospective cohort study. *PLoS Med*. 2016 Jul 19;13(7):e1002085.

Conklin AI, Ponce NA, Crespi CM, Frank J, Nandi A, Heymann J. Economic policy and the double burden of malnutrition: cross-national longitudinal analysis of minimum wage and women's underweight and obesity. *Public Health Nutr*. 2017 Dec 6;1-8 [Epub ahead of print].

Conklin AI, Ponce N, Frank J, Nandy A, Heymann J. Minimum wage and overweight and obesity in adult women: Multilevel analysis of low and middle income countries. *PLoS One*. 2016 Mar 10;11(3):e0150736.

## D

Dahri K, Gong Y, **Loewen PS**. A quantitative and qualitative assessment of the utilization of mobile computing devices by clinical pharmacists. *Health Policy and Technology* 2016;5:285-290. [SJRN 2-year cites per doc 0.820]

**De Vera MA**, Campbell NK, Chhina H, Galo JS, Marra C. Practical Strategies and Perceptions from Community Pharmacists Following their Experiences with Conducting Pharmacy Practice Research: A Qualitative Content Analysis. Revisions submitted to *Int J of Pharm Pract*. 2017 Oct 26.

Dragojlovic N, **Lynd LD**. What will the crowd fund? Preferences of prospective donors for drug development fundraising campaigns. *Drug Discov Today*. 2016 Dec;21(12):1863-1868.

## E

Edwards NT, Greanya ED, Kuo JF, **Loewen PS**, Culley CL. Patient preferences regarding atrial fibrillation stroke prophylaxis in patients at potential risk of atrial fibrillation. *Int J Clin Pharm*. 2017 Apr;39(2):468-472.

Ehteshami-Afshar S, FitzGerald JM, Carlsten C, Tavakoli H, Rousseau R, Tan WC, Rolf JD, **Sadatsafavi M**. The impact of comorbidities on productivity loss in asthma patients. *Respir Res*. 2016 Aug 26;17(1):106.

## F

FitzGerald JM, **Sadatsafavi M**. Improving precision in the prediction of asthma exacerbations. *Lancet Respir Med*. 2017 Jul;5(7):539-540.

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## G

Galo JS, Mehat P, Rai SK, Avina-Zubieta A, **De Vera MA**. What are the Effects of Medication Adherence in Rheumatic Diseases: A Systematic Review. *Annals of the Rheumatic Diseases*. 2016 Apr;75(4):667-73.

## H

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“ We found that over the next 15 years, the total number of COPD patients will increase by 155%, while the number of days patients with COPD spend in hospitals will increase by 182%. ”

13.204  
IMPACT  
FACTOR

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**Harrison M**, Milbers K, Mihic T, Anis AH. Incentives in Rheumatology: the Potential Contribution of Physician Responses to Financial Incentives, Public Reporting, and Treatment Guidelines to Health Care Sustainability. *Curr Rheumatol Rep*. 2016 Jul;18(7):42.

Harvey-Leeson S, Karakochuk CD, Hawes M, Tugirimana PL, Bahizire E, Akilimali PZ, Michaux KD, **Lynd LD**, Whitfield KC, Moursi M, Boy E, Foley J, McLean J, Houghton LA, Gibson RS, Green TJ. Anemia and micronutrient status of women of childbearing age and children 6-59 Months in the Democratic Republic of the Congo. *Nutrients*. 2016 Feb 17;8(2).

Hategeka C, Shoveller J, Tuyisenge L, **Lynd LD**. Assessing process of paediatric care in a resource-limited setting: a cross-sectional audit of district hospitals in Rwanda. *Paediatr Int Child Health*. 2017 Mar 27;1-9.

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Hollander Z, DeMarco ML, **Sadatsafavi M**, McManus BM, Ng RT, Sin DD. Biomarker development in COPD: moving from p-values to products to impact patient care. *Chest*. 2016 Sep 29.

## J

Jassem AN, Prystajek N, **Marra F**, Kibsey P, Tan K, Umlandt P, Janz L, Champagne S, Golding GR, Mulvey MR, Henry B, Hoang LM. Characterization of *Clostridium difficile* strains in British Columbia, Canada: A shift from NAP1 majority (2008) to novel strain types (2013) in one region. *Can J Infect Dis Med Microbiol*. 2016;2016:8207418.

Johnson KM, FitzGerald JM, Tavakoli H, **Sadatsafavi M**. Stability of asthma symptom control in a longitudinal study of mild-moderate asthmatics. *JACI-in practice*. *J Allergy Clin Immunol Pract*. 2017 Nov - Dec;5(6):1663-1670.e5.

## K

Kendzierska T, **Sadatsafavi M**, Aaron SD, To TM, Loughheed MD, FitzGerald JM, Gershon AS. Concurrent physician-diagnosed asthma and chronic obstructive pulmonary disease: A population study of prevalence, incidence and mortality. *PLoS One*. 2017 Mar 16;12(3):e0173830.

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Khakban A, Mohammadi T, **Lynd LD**, Mabbott D, Bouffet E, Gastonguay L, Zafari Z, Malkin D, Taylor M, Marra CA. Societal preferences in the treatment of pediatric medulloblastoma: Balancing risk of death and quality of life. *Pediatr Blood Cancer*. 2016 Dec 4.

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Kolhatkar A, Cheng L, Chan F, **Harrison M**, Law MR. The Impact of Medication Reviews by Community Pharmacists: reply. *Journal of the American Pharmacists Association* 2016. 56(5): 513-520. e1

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## L

Leung VW, Soon JA, **Lynd LD**, Marra CA, Levine M. Population-based evaluation of the effectiveness of two regimens for emergency contraception. *Int J Gynaecol Obstet*. 2016 Jun;133(3):342-6.

**Loewen PS**, Gamble A, Shah K, Tkachuk S, Legal M, **Zed PJ**. Learner-Preceptor Ratios for Practice-Based Learning Across Health Disciplines: A Systematic Review. *Med Educ*. 2017 Feb;51(2):146-157.

**Loewen PS**, Gerber P, MacDonald G, McCormack J. Design and implementation of an integrated medication management curriculum in an entry-to-practice doctor of pharmacy program. *Pharmacy Education* 2016;16(1):122-130. [SJR 2-year cites per doc 0.286]

**Loewen PS**, Kapanen A, Ji AT, McClean A. Patient Values and Preferences for Antithrombotic Therapy in Atrial Fibrillation: A Systematic Review. *Thromb Haemost*. 2017 Jun 2;117(6):1007-1022.

**Lynd LD**, Traboulee A, Marra CA, Mittmann N, Evans C, Li KH, Carter M, Hategekimana C. Quantitative analysis

of multiple sclerosis patients' preferences for drug treatment: a best-worst scaling study. *Ther Adv Neurol Disord*. 2016 May 15;9(4):287-96. [Epub ahead of print]

## M

Marra CA, Harvard S, Grubisic M, Galo J, Clarke A, Elliot S, **Lynd LD**. Consumer preferences for food allergen labelling. *Allergy Asthma Clin Immunol*. 2017 Apr 4;13:19.

**Marra F**, Chong M, Najafzadeh M. Increasing incidence and treatment costs associated with herpes zoster infection in Canada. *BMC Infect Dis* 2016; Oct 20; 16(1):589-592.

**Marra F**, George D, Chong M, Sutherland S, Patrick DM. Antibiotic prescribing by dentists has increased: Why? *J Am Dent Assoc*. 2016 Feb 5;147(5):320-7. [Epub ahead of print]

**Marra F**, Lo E, Kalashnikov V, Richardson K. Risk of Herpes Zoster in Individuals on Biologics, Disease-Modifying Antirheumatic Drugs, and/or Corticosteroids for Autoimmune Diseases: A Systematic Review and Meta-Analysis. *Open Forum Infect Dis*. 2016 Sep 28;3(4):ofw205. eCollection 2016 Oct.

**Marra F**, Ruckenstein J, Richardson K. A meta-analysis of stroke risk following herpes zoster infection. *BMC Infect Dis*. 2017 Mar 7;17(1):198.

McGuire K, Avina-Zubieta JA, Esdaile JM, **Sadatsafavi M**, Sayre EC, Abrahamowicz M, Lacaille D. Risk of Incident Chronic Obstructive Pulmonary Disease (COPD) in Rheumatoid Arthritis: A Population Based Cohort Study. *Arthritis Care Res (Hoboken)*. 2017 Oct 19.

Meacock R, Sutton M, Kristensen S-R, **Harrison MJ**. Using survival analysis to improve estimates of life year gains in policy evaluations. *Med Decis Making*. 2017 May;37(4):415-426.

Mehat P, Atiqzaman M, Esdaile JM, Avina-Zubieta JA, **De Vera MA**. Medication non-adherence in systemic lupus erythematosus: a systematic review. *Arthritis Care Res (Hoboken)*. 2017 Jan 13.

Mohammadi T, Bansback N, **Marra F**, Khakban A, Campbell JR, FitzGerald JM, **Lynd LD**, Marra CA. Testing the external validity of a discrete choice experiment method: an application to latent tuberculosis infection treatment. *Value Health*. 2017 Jul - Aug;20(7):969-975.

Mota L, Al-Efraji K, Campbell JR, Cook VJ, **Marra F**, Johnston J. Therapeutic drug monitoring in anti-tuberculosis treatment: a systematic review and meta-analysis. *Int J Tuberc Lung Dis*. 2016 Jun;20(6):819-26.

## P

Patel AR, Lester RT, Marra CA, van der Kop ML, Ritvo P, Engel L, Karanja S, **Lynd LD**. The validity of the SF-12 and SF-6D instruments in people living with HIV/AIDS in Kenya. *Health Qual Life Outcomes*. 2017 Jul 17;15(1):143.

Penton H, Hilligsmann M, **Harrison M**, Reginster JY, Boonen A, Bansback N. Potential cost-effectiveness for using patient decision aids to guide osteoporosis treatment. *Osteoporos Int*. 2016 Sep;27(9):2697-2707.

Polisena J, Burgess M, Mitton C, **Lynd LD**. Engaging the Canadian public on reimbursement decision-making for drugs for rare diseases: a national online survey. *BMC Health Serv Res*. 2017 May 26;17(1):372.

## R

Rai SK, Avina-Zubieta JA, McCormick N, **De Vera MA**, Lacaille D, Sayre E, Choi HK. Trends in Gout and Rheumatoid Arthritis Hospitalizations in Canada from 2000-2011. *Arthritis Care Res (Hoboken)*. 2016 Aug 26.

Rai SK, Avina-Zubieta JA, McCormick N, **De Vera MA**, Shojania K, Sayre E, Choi HK. The rising prevalence and incidence of gout in British Columbia, Canada: population-based trends from 2000-2012. *Semin Arthritis Rheum*. 2016 Aug 17. pii: S0049-0172(16)30196-2.

Raymakers AJ, Mayo J, Lam S, FitzGerald JM, Whitehurst DG, **Lynd LD**. Cost-effectiveness analyses of lung cancer screening strategies using low-dose computed tomography: a systematic review. *Appl Health Econ Health Policy*. 2016 Aug;14(4):409-18.

Raymakers AJ, McCormick N, Marra CA, FitzGerald JM, Sin D, **Lynd LD**. Do inhaled corticosteroids protect against lung cancer in patients with COPD? A systematic review. *Respirology*. 2017 Jan;22(1):61-70.

Raymakers AJ, **Sadatsafavi M**, Sin DD, **De Vera MA**, **Lynd LD**. The impact of statin use on all-cause mortality in patients with COPD: a population based cohort study. *Chest*. 2017 Feb 12.

Ronald LA, Campbell JR, Balshaw RF, Roth DZ, Romanowski K, **Marra F**, Cook VJ, Johnston JC. Predicting tuberculosis risk in the foreign-born population of British Columbia, Canada: study protocol for a retrospective population-based cohort study. *BMJ Open*. 2016 Nov 25;6(11):e013488.

Ryerson CJ, Tan B, Fell C, Manganas H, Shapera S, Mittoo S, **Sadatsafavi M**, To T, Gershon A, Fisher JH, Johannson K, Hambly N, Khalil N, Marras T, Morisset J, Wilcox PG, Halayko A, Kolb M. The Canadian registry for pulmonary fibrosis (CARE-PF): design and rationale of a national pulmonary fibrosis registry. *Can Respir J*. 2016;2016:3562923.

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S

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IMPACT  
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# Collaborations

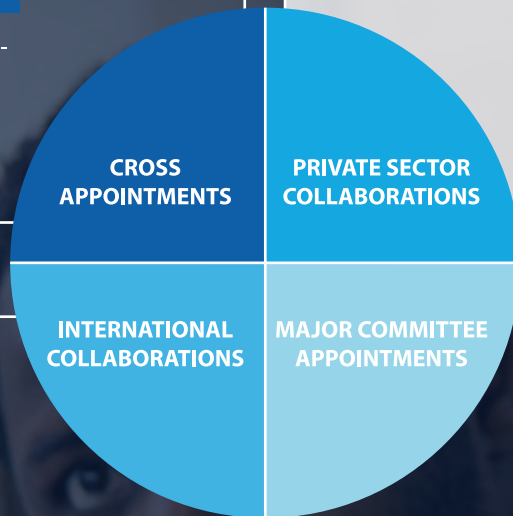
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<b>Fawziah Lalji</b> BC Ministry of Health Drug Benefits Committee	<b>Mary De Vera</b> BC Ministry of Health Pharmanet Data Stewardship Committee Vice-Chair, Canadian Pharmacy Residency Board Standards Committee
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	Association of Faculties of Pharmacy Education Committee Association of Faculties of Pharmacy Educational Outcomes Steering Committee BC Health Authorities Pharmacy & Therapeutics Committee

# Teaching

## Undergraduate Courses

PHRM 100 - Foundations of Pharmacy:  
Pharmacist, Patient, and Healthcare  
Systems

PHRM 111 - Medication Management I

PHRM 131 - Study Design & Interpretation I

PHRM 211 - Medication Management II

PHRM 212 - Medication Management  
III

PHRM 231 - Study Design and Interpretation II

PHAR 440 - Pain and Research Therapy

PHAR 450K - Leadership Experience  
Applied to Pharmacy

PHAR 451 - Therapeutics III

PHAR 456 - Applied Pharmacoeconomics

## Graduate Courses

PHAR 501 - Advanced Pharmacotherapeutics

PHAR 506 - Critical Appraisal of Pharmacotherapy Literature.

PHAR 534 - Clinical Clerkships II

PHAR 535 - PharmD Seminar

PHAR 554 - Advanced Hospital Pharmacy Management

PHAR 591 - Scholarly Integrity and Research Ethics

SPPH 581Q - Economic Evaluation II

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